
Appendix I

CDFW Incidental Take Permit



California Department of Fish and Wildlife
Central Region (4)
1234 EAST SHAW AVENUE
FRESNO, CA 93710

California Endangered Species Act
Incidental Take Permit No. 2081-2014-035-04

PANOCH VALLEY SOLAR PROJECT

Authority: This California Endangered Species Act (CESA) incidental take permit (ITP) is issued by the California Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code section 2081, subdivisions (b) and (c), and California Code of Regulations, Title 14, section 783.0 et seq. CESA prohibits the take¹ of any species of wildlife designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.² CDFW may authorize the take of any such species by permit if the conditions set forth in Fish and Game Code section 2081, subdivisions (b) and (c) are met. (See Cal. Code Regs., tit. 14, § 783.4).

Permittee:	Panoche Valley Solar, LLC
Principal Officer:	Mark Noyes
Contact Person:	Eric Cherniss
Mailing Address:	Panoche Valley Solar LLC c/o Consolidated Edison Development, Inc. 100 Summit Lake Drive, Suite 410 Valhalla, NY 10595

Effective Date and Expiration Date of this ITP:

This ITP shall be executed in duplicate original form and shall become effective once a duplicate original is acknowledged by signature of Permittee on the last page of this ITP and returned to CDFW's Habitat Conservation Planning Branch at the address listed in the Notices section of this ITP. Unless renewed by CDFW, this ITP's authorization to take the Covered Species shall expire on **December 31, 2045**.

Notwithstanding the expiration date on the take authorization provided by this ITP, Permittee's obligations pursuant to this ITP do not end until CDFW accepts as complete Permittee's Final Mitigation Report required by Condition of Approval 8.8 of this ITP.

¹ Pursuant to Fish and Game Code section 86, "take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." (See also *EPIC v. California Dept. of Forestry and Fire Prot.* (2008) 44 Cal.4th 459, 507 [for purposes of incidental take permitting under Fish and Game Code section 2081, subdivision (b), "take" ... means to catch, capture or kill].)

² "The definitions of endangered, threatened, and candidate species for purposes of CESA are found in Fish and Game Code sections 2062, 2067, and 2068, respectively.

Project Location:

The Panoche Valley Solar Project (Project) is located in the Panoche Valley within the County of San Benito (Figure 1). The Project is located approximately 1.2 miles north of Panoche Road, on both sides of Panoche Road, in Sections 3, 4, 8, 9, 10, 11, 14, 15, and 16, R15A, 10E.

The PG&E activities required to support the solar energy generation portion of the Project are along the existing PG&E transmission lines from the solar generation site to the Panoche Substation, 17 miles east.

Project Description:

The Project includes the development of 2,153 acres of undeveloped land into a solar energy generation facility, and associated telecommunication upgrades. Construction of the Project is estimated to take approximately 18 months. Power generated by the solar farm will be delivered into the electrical grid system via an existing Pacific Gas and Electric (PG&E) 230 kilovolt (kV) transmission line. Operation and maintenance (O&M) of the Project is expected to last a minimum of 30 years.

Project Features

The Project will consist of a solar field of ground-mounted photovoltaic (PV) modules, an electrical collection system that converts generated power from direct current (DCP) to alternating current (AC), a Project substation that collects and converts the AC from 34.5 kilovolts (kV) to 230 kV, and a switching station that will deliver the generated power to the electrical grid via the PG&E 230-kV transmission lines from Moss Landing to Panoche and Coburn to Panoche. The Project also includes upgrading the primary and secondary telecommunications networks.

Key features and areal extent of the proposed Project are summarized in Table 1 and Table 2 and depicted in Figures 2 through 8.

Table 1: Permanent Impacts from Project Construction

Project Feature	Area Impacted
Solar arrays ¹	1,529 acres
Project roads (including pullouts)	30 acres
Substation, switching station, and O&M building	12 acres
Graded areas ² (outside of other Project features)	101 acres
230 kV loop-in tubular steel poles	250 square feet
Trenching and foundations adjacent to arrays	12 acres
Perimeter fencing	0.2 acres
Vasquez County Road ³	4 acres
Total	1,688.2 acres

Incidental Take Permit
No. 2081-2014-035-01
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

Table 1: Permanent Impacts from Project Construction

Project Feature	Area Impacted
¹ Includes foundations, direct current trench alternating current trench, grading within the solar arrays, access corridors, and solar array work areas. Solar panels and associated electrical equipment will be installed on approximately 185,000 support post foundations. Posts will be steel I-shaped sections with a cross sectional area of 4.5 square inches each. Includes 2.33 acres of foundations for posts, inverters and transformers.	
² Limited grading is expected to be required because of the nearly flat terrain. Grading will be required on slopes greater than 3 percent for PV power blocks. The proposed Project includes approximately 352 acres (205.47 acres for arrays; 30 acres for roads; 12 acres for the substation, switching station and O&M building; 4 acres for Vasquez County Road; and 100.53 acres for other grading areas) of proposed area that will be graded.	
³ Vasquez County Road will be replaced with a new road that will run outside of the Project fence line south of Las Aguilas Creek (outside of the Valley Floor Conservation Land).	

Table 2: Temporary Impacts from Construction

Project Feature	Area Impacted
Road and perimeter fence construction buffers	72 acres
Las Aguilas Creek crossing work areas	2 acres
Temporary laydown areas ¹	105 acres
Solar array buffers	286.8 acres
Total	465.8 acres

¹ 92.82 acres of the temporary laydown areas will be converted to on-site conservation lands once Project construction is complete.

Solar Project Components

The Project will utilize 1,688.2 acres (Project Footprint) to install approximately one million PV panels that will each be sized approximately three feet by six feet. All panels will be oriented to maximize solar resource efficiency. Panel faces will be non-reflective and black or blue in color. The PV panels will be mounted on steel support structures that stand up to fifteen feet in height. The steel support structures will be constructed of corrosion-resistant, galvanized steel.

The PV panels will be arranged throughout the Project Footprint in modular blocks connecting to an inverter system. The purpose of the inverter system is to convert the direct current (DC) energy produced by the PV panels to alternating current (AC) energy that is required for electric transmission. Rows of PV panels may be spaced approximately 10 to 35 feet apart (panel edge to panel edge).

The Project will include a 20-foot wide gravel perimeter road that will be used during maintenance activities and emergency response (with additional pullout locations for vehicles to be able to pass each other every 500 to 3,000 feet. Pullouts will be approximately 20 feet wide by 300 feet long). In addition, interstitial space between panels will be used for transportation access during installation and maintenance activities. These interstitial transportation access corridors will be native vegetative cover. No active vegetation management in the spaces between panels is anticipated to be needed for routine maintenance activities.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

Two 30-foot wide native dirt access roads will be established through the east side giant kangaroo rat (GKR) corridor, one through the northern arm and one through the southern arm. No ground preparation or placement of gravel or other material will be conducted within these access roads. Trenching of electrical cables will be conducted through these roads. As shown in Figure 2, three strand wire fences will be placed along the access roads and the perimeter of the East Side GKR Corridor to prevent unauthorized access through the protected GKR Corridor by personnel or vehicles during construction and operations and maintenance (O&M). These two access roads will be utilized as needed during authorized O&M activities; however, no traffic will be permitted at night except for emergency purposes. All traffic traveling on these two access roads will maintain a 5 mile per hour (mph) speed limit. Speed limit signs will be posted on these access roads.

A 30-foot wide access road will also be established at the northern end of the 200-ft wide GKR corridor along Little Panoche Road through solar array Block 5 to allow access to the PV panels from the perimeter road. Trenching of electrical cable will be conducted through the southern portion of the corridor across Little Panoche Road. The location of this access road and trenching is depicted in the detail inset in Figure 2.

As part of the PV panel installation, grading for contour smoothing will be necessary in certain areas (grading depicted in Figure 2) to meet the maximum slopes required to install the tracker system as well as maintain appropriate storm water flows on the Project Footprint. Each array will contain up to 35 rows of modules driven by a single motor. Some contour smoothing will be required to limit the height of the modules (higher modules will require deeper non-uniform foundations).

The Project's current design and grading plan was developed to allow post-development storm water runoff from the Project Footprint to discharge into the same water courses as pre-development (i.e. Las Aguilas Creek, Panoche Creek, or the unnamed north/south tributary of Las Aguilas). Grading is required to enhance the efficiencies of the solar panels (i.e. reduce shading) and to provide proper access routes for operations, maintenance, and emergency response.

Grading will be required for the construction of the perimeter road. The perimeter road will be a maximum of 20 feet wide, with pullouts every 500 to 3,000 feet, as required by the local Fire Department. Pullouts will be approximately 20 feet wide by 300 feet long. The perimeter road will be graded, compacted, and laid with road aggregate in accordance with the San Benito County and the local Fire Department requirements.

An additional transportation road (a maintained fenced-off dirt path) known as Vasquez County Road, will be placed south of Las Aguilas Creek and north of the perimeter fence line (outside the boundary of the Valley Floor Habitat Management Lands). This transportation

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

road will provide access to the western portion of the Valadeao Ranch Habitat Management Lands from Little Panoche Road for landowners and ranchers (see Figure 2). Vasquez County Road will intersect with the Project's perimeter road south of the Las Aguilas Bridge crossing.

Overhead lines will be installed on the tubular steel poles (TSPs) connecting the switching station to PG&E's existing 230kV transmission line and from a point of connection pole between PG&E's switching station and the Project's substation (see Figure 5; discussed below under Interconnection Facilities). Power to the O&M building and the Project's Protection and Control building within the substation will also be provided via overhead distribution from a metered tap of PG&E's existing 15 kV distribution line that runs along Little Panoche Road.

Electrical energy in the form of DC generated by the PV panels is collected in combiner boxes and routed to an inverter. A combiner box is a small electrical enclosure, approximately one cubic foot in size, which is mounted on the PV tracking system and allows the PV string voltages to be placed in parallel, increasing the DC current. DC cables from the panels to combiner boxes will be rack-mounted. Cables will be rack-mounted (above ground) within the solar panel arrays and will go underground when they reach the edge of the arrays or power blocks. Electricity from panel combiner boxes will be gathered via an underground or rack-mounted DC collection system from the solar arrays and routed to the centralized inverter system. The inverter systems will be enclosed and mounted on concrete or steel foundations, with the entire structure being approximately 15 feet wide by 40 feet long by 10 feet high. There will be one of these structures per power block.

The DC will be converted to AC by the inverters, stepped up by the transformers, and transmitted to the new proposed substation via 34.5 kV AC medium-voltage collection lines. The medium voltage collection lines will begin at the inverter system transformers and terminate in the collection breaker of the substation. The medium voltage lines will be routed to the substation using buried cables (i.e. underground cables).

Electric Substation and Switching Station

An electrical substation will utilize transformers to convert power from 34.5 kV to 230 kV. The substation will be located north of the existing PG&E transmission line and proposed switching station (Figure 2 and 5). An on-site access road will be constructed to serve the substation, as well as an approximate one-acre fenced-in parking area. The substation output will be connected to a 230 kV switching station, known as the Las Aguilas Switching Station, which will be constructed by the Applicant or its contractor, but owned and operated by PG&E after construction and testing of the switching station is complete. The substation and switching station equipment will cover approximately 9 acres of the proposed 12-acre substation area. The equipment and facilities in the substation and switching station will

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

range in height from three to 35 feet, except for the microwave tower and TSPs, which are discussed below under Interconnection Facilities. Land preparation prior to the construction of the substation and switching station will involve grading and compacting soil to a level grade. Several concrete pads will be constructed as foundations for electrical equipment, and the remaining area will be covered with gravel. Equipment used within the substation and switching station will include electrical transformers, switchgears, and related substation facilities designed and constructed to transform medium-voltage power from the Project's delivery system to PG&E's existing 230 kV transmission line.

Interconnection Facilities

As shown in Figure 5, it is anticipated that four pairs of new TSPs will be required: two pairs within the existing transmission right-of-way and one pair on either side of the switching station. There will be four temporary work areas to allow for construction of the eight approximately 135-foot tall TSPs. The exact number of TSPs will be defined once final design is complete; however, the number of TSPs will not exceed 12. PVS or its contractor will also remove two existing lattice towers within the Project Footprint (in the existing transmission right-of-way). The tower foundations will be demolished by PVS or its contractor to approximately three feet below grade.

PVS or its contractor will grade the pads for the TSPs, then drill and pour foundations. The TSPs will be erected and then conductor will be strung from the existing 230 kV transmission line to the TSPs and into the switching station.

Operation and Maintenance Building

The Operations and Maintenance (O&M) building will be located inside the Project Footprint, west of Little Panoche Road and will be built to local codes and standards. The O&M building will consist of a standard steel building on concrete slab at a maximum height of 20 feet. The O&M building will provide office space, a meeting room, equipment to support operations and maintenance, parts storage, as well as security and site monitoring equipment. The O&M building will include a water well that will be used to provide potable water to the building as well as a septic field for domestic waste. Electricity will be supplied from a metered tap from the local existing distribution power grid (see Figure 9).

Temporary Laydown Areas and Solar Array Buffers

The laydown areas will cover a maximum total of 104 acres. Each laydown area will be located to accommodate access for construction traffic via existing county roads. The laydown areas will require a power source for the construction trailer complex, which will be supplied by an extension of the existing distribution line from Little Panoche Road and portable generator(s), as needed. Figure 4 illustrates temporary construction areas and

Figure 2 shows the location of temporary laydown areas. Figure 9 shows how power will be routed from the existing distribution line to the construction trailers. Security and/or San Joaquin kit fox (SJKF) exclusionary fencing may be installed to secure designated laydown areas from theft or vandalism and to help minimize the entry of SJKF into these areas.

No grading or ground preparation will occur in the laydown areas; however, gravel may be placed in the laydown areas as needed to support equipment, vehicles and material storage. Temporary construction trailers will be placed in laydown areas and these laydown areas will also be used for parking, portable toilets and wash stations, waste receptacles, equipment, and material storage. Preassembled PV panels and other equipment and materials will arrive on site and be placed on the ground or on shipping containers in the laydown areas. Storm water control devices will also be installed in the laydown yards.

Up to three acres of temporary water ponds will also be located in laydown areas (see Figure 4). The water ponds will provide water needed for site development and dust control. Exclusionary fencing will be installed around the water ponds to minimize the entry of State listed species addressed in this ITP.

Laydown yards will be heavily trafficked during construction and compaction of the ground and vegetation is anticipated. After completion of construction, the soil in the laydown areas will be decompacted and recontoured if needed to support revegetation efforts. Any construction debris or aggregate utilized will be removed and the area will be reseeded to facilitate restoration of the area to pre-development conditions. Following construction, approximately 93 acres of the temporary laydown areas will be protected and placed into permanent conservation.

Solar array buffer area, which are entirely within the temporary impact areas, be utilized during construction for temporary staging of equipment, tools and materials needed for installation of the solar arrays. Concrete washout stations, personnel parking, smaller construction trailers, portable toilets and wash stations, trash receptacles, portable generators, and erosion control materials may also be placed in solar array buffers to the extent allowed by conditions of this ITP. These buffer areas will also be utilized by personnel and trucks to transport material and equipment around the site. After construction is complete, the solar array buffers will be restored to pre-construction conditions. This will include removal of construction debris, decompaction, recontouring and reseeding as needed.

Federal and State Water Impacts

Portions of the required perimeter road cross streams. There are 37 stream impact locations affecting 30 streams within the Project Footprint. Total impacts to streams will be approximately 8.30 acres from construction of the Project.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

There are 9 additional potential stream impacts associated with mitigation enhancement activities on the Conservation Lands, which may result in approximately 0.414 acres of impacts. These are discussed in more detail in the Wetland Creation/Enhancement on the Conservation Lands section below. The perimeter road may require a bridge over Las Aguilas Creek. This bridge will be utilized for emergency access only and authorized operation and maintenance activities. Three crossings on the eastern side of the Project Footprint will involve installation of a pipe arch culvert, low water crossings and filling/grading of streams. In general, these impacts to streams are a result of grading, perimeter fencing and roadway construction, installation of best management practices (BMPs), trenching for underground cables, and solar panel array installation (see Figure 8). Along the eastern perimeter road, the majority of surface flows from offsite upland areas will be intercepted by a channel (brow ditch) located on the upland side of the perimeter road to protect the road and control erosion. The flows will then be conveyed to either a low water crossing, culvert, and/or discharged at the end of the channel. At the downstream end of the culvert or end of the channel, the surface grade will be transitioned and flattened from a channel shape to a level spread, so the surface water flows are transitioned from concentrated flows to sheet flows. Rip rap or other energy dissipation BMPs will be used during the construction of the perimeter road and surface grade transitioned as needed to ensure the flows are converted from concentrated flows to sheet flows consistent with pre-development hydrologic conditions. In areas where no channel is adjacent to the perimeter road, upland offsite flows will sheet flow across the road in the same manner as pre-development. Once surface water reaches the interior of the site, the storm water runoff will sheet flow to its respective main water course; either to Las Aguilas Creek, the unnamed north-south tributary into Las Aguilas Creek, one of two detention ponds, or Panoche Creek.

The storm water detention ponds shown on Figure 8 are located within the western half of the Project Footprint. These ponds are designed to intercept the sheet flows from respective sub-basin watershed and to attenuate the additional flows from the Project's added impervious surfaces. Full drawdown and discharge from each detention pond is to occur within 24 hours. Downstream discharge of flows from the western half of the Project Footprint will enter into its respective culvert or bridge along Little Panoche Road. Discharge from the eastern half of the Project Footprint will sheet flow into the Las Aguilas Creek. Flows from both sides of the site will ultimately be conveyed to the confluence of Las Aguilas Creek and Panoche Creek. The culverts and bridges along Little Panoche Road as well as the confluence of the two major creeks will be designed so that post-development runoff flow rates do not exceed pre-development runoff flow rates.

Telecommunication Upgrades

PVS or its contractor will install optical ground wire (OPGW) on its existing Panoche-Moss Landing 230 kV transmission line to establish the primary telecommunication service

Incidental Take Permit
No. 2081-2014-035-04
PANOCHIE VALLEY SOLAR, LLC
PANOCHIE VALLEY SOLAR PROJECT

between the switching station on the Project Footprint and the existing Panoche substation located 17 miles to the east of the Project (Figure 3 and 7). This is a routine method of providing telecommunication services between electrical substations, generating facilities, and other utility substations. The purpose of the OPGW is twofold: for system protection and control of the transmission line. OPGW is designed to replace traditional shield wire, which protects the line by providing a path to ground.

The existing 230 kV transmission line currently has shield wire installed; PVS or its contractor will replace the shield wire with OPGW by using the existing shield wire to pull OPGW through the line. It is anticipated that the Project will require approximately twelve temporary pull/reel and splice sites along the existing 17-mile transmission line corridor to complete installation of the OPGW. These splice and pull sites will require an approximately 75-foot by 75-foot work area located at the midspan of existing tower sites within the transmission corridor right-of-way (ROW). Minor structural modifications will also be made to the transmission towers for the mounting of splice boxes where the 3 to 5 (+/-) mile long sections of OPGW will be spliced. Access to pull/reel sites and to transmission towers is expected to be mostly along existing unimproved roads, improved un-surfaced, or surfaced roads that lead to many of the existing towers. No new roads will be needed to access tower locations. If required, for inaccessible tower locations, helicopters will be used to place materials at the point of installation.

In addition, at each of the 75 existing tower structures along the 17-mile 230 kV transmission line route, minor upgrades to the steel attachments on the towers will be required to accommodate installation of the OPGW. These upgrades will include only overhead work on the existing tower, such as replacement of the gode peaks with a pulley to accommodate the OPGW. The existing shield wire (static wire) will then be used to pull the OPGW through each tower pulley. Existing roads or helicopters will be used to provide access to the sites necessary to implement the attachments needed on each tower.

Construction will likely be completed using a combination of helicopter and ground crews. Helicopters may be used to transport qualified electrical workers to the towers, deliver materials, and assist in pulling the OPGW from tower to tower. Typical construction vehicles for these activities will include pickup trucks, a bucket truck, man-lift, and a crane.

The 230 kV transmission line also crosses under two existing 500 kV transmission lines. This approximately 4,650-foot section will require replacement of approximately twelve existing distribution wood poles within the existing ROW and on land currently used for agricultural purposes. For this work, PVS or its contractor will splice an All-Dielectric Self-Supporting (ADSS) fiber optic cable from the 230 kV towers to the east and west sides of the 500 kV transmission line corridor and attach the ADSS to the replacement wood poles. Note that the ADSS will take the place of OPGW for this 4,650-foot section. Replacement of the existing poles is necessary to accommodate the additional load associated with the ADSS. To

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

replace the poles, a 30-foot by 40-foot work area will be required to accommodate one crew truck and a trailer truck to bring each pole to the site, and a line truck to remove the existing pole and replace it with a new pole. From the easternmost 230 kV tower along this section to the distribution pole, the ADSS will be trenched underground for approximately 365 feet within an existing dirt road. The trench will be up to 24 inches wide and up to 8 feet deep to avoid any conflict with agricultural land uses. From the westernmost 230 kV tower along this section to the distribution pole, the ADSS will run overhead approximately 100 feet.

Secondary Telecommunication Service

To meet PG&E's standards, two physically redundant communication paths for connectivity will be required. In addition to the OPGW installation on the existing 230 kV transmission line structures, described above, PVS or its contractor will establish a secondary system. The secondary system will be installation of a microwave communication system between the Project and PG&E's existing system to achieve required system protection. The microwave path will start at the Project's switching station, where a new microwave tower will be constructed. The path will continue to an existing microwave tower at Call Mountain owned by CalFire, where new equipment will be co-located on an existing tower, then to Panoche Mountain where new equipment will be co-located on an existing tower owned by American Tower Corporation. The microwave path will then terminate at a new tower to be constructed at PG&E's existing Helm Substation. The microwave towers constructed at the Project's switching station and Helm Substation will be approximately 100 feet tall and will be located within the fence line of the existing Helm substation and new Las Aguilas switching station. The towers will be a free-standing, four-legged lattice steel structure occupying an approximate 30-foot by 30-foot area.

Existing roads at Call Mountain, Panoche Mountain, and Helm Substation will be utilized to access the proposed microwave tower sites; therefore, no new roads will be constructed to bring equipment and materials to the work sites.

Communications to Moss Landing and Coburn

PG&E will have telecommunications between Moss Landing, Coburn, and the Project Footprint. In addition to the installation of OPGW from the Panoche substation, PG&E will utilize power line carrier (PLC) and leased line systems to connect the remaining two substations at Moss Landing and Coburn; the implementation of these systems will involve minor modifications to the existing switching stations at Moss Landing and Coburn substations. Essentially, PLC is a system that uses the power conductors between substations to transmit low speed serial data for relay protection communications through existing electrical lines. The Moss Landing switching station connection will use a PLC system to provide permissive overreaching transfer trip (POTT) and connections to Coburn switching station will be a PLC and a leased line circuit to provide POTT and direct transfer

Incidental Take Permit
No. 2081-2014-035-04
PANOCHIE VALLEY SOLAR, LLC
PANOCHIE VALLEY SOLAR PROJECT

trip (DTT) capabilities. The leased line service is anticipated to be provided by AT&T and will be a point-to-point high-speed serial data connection between Coburn and the Project Footprint substations for protection relay communications. No additional poles and cables are anticipated to be needed to accomplish this work. All work at the Moss Landing and Coburn substations will take place within the existing substation fence line and no new ground disturbance is anticipated.

On-Site Telephone and Data Service

Telephone and internet services to the Project Footprint will be provided by AT&T. AT&T currently provides service in the Panoche Valley and there is an existing service connection node located approximately 2,000 feet south of the Project Footprint along Little Panoche Road. PVS has stated its understanding that AT&T plans to upgrade service to this connection point by installing fiber adjacent to the existing copper lines. No coverage is being sought by the Applicant for work beyond this connection point. From the existing connection point to the Project Footprint (approximately 2,000 feet), AT&T will install fiber and/or copper along the eastern side of Little Panoche Road within the County road easement. The fiber and/or copper installation will continue up the eastern side until it nears the Project Footprint manhole/splice box identified on Figure 6. At that point, AT&T will route the fiber and/or copper under Little Panoche Road west using a directional bore. Once the fiber reaches the Project's manhole/splice box, the PVS or its contractors will install the underground conduit for all fiber located within the Project Footprint. Fiber and/or copper may also be temporarily brought into the construction trailers that will be located within the southern laydown yard.

All of AT&T's work will be contained within the existing County ROW. The AT&T fiber lines will be installed using a directional boring technique. A typical directional boring team will include three vehicles; (1) standard work vehicle – half ton pickup, (2) dump truck to hold bore pit spoils, and (3) approximately 30-foot long flatbed truck for tools and materials with trailer mounted bore equipment. The bore depth will range between 48 inches to 72 inches deep to avoid geologic features or biological resources, but will typically stay at the minimum depth of 48 inches. The directional boring process will use manhole/splice pits placed approximately every 500 feet, and are estimated to be 4-foot by 4-foot by 3-foot in size. Those manhole/splice pits are micrositied to avoid various features that will pose constructability issues or adversely impact environmental resources. AT&T will then install (2) 1.25-inch innerducts (a type of PVC casing material) to route fiber cables through. Four pits will be installed approximately 500 feet apart from the manhole/splice box at the Project Footprint to the existing connection point 2000 feet south. All AT&T activities within this 2000 feet segment are anticipated to take approximately three to five days.

Project Fencing

The security fences around the Project Footprint's permanent impact areas will be smooth-top chain link in the upper portion, smooth wire in the bottom portion, and a height of six feet with a minimum 3.5-inch gap along the bottom that will allow wildlife to travel through the Project Footprint and have access to existing travel corridors. Gated six to eight-foot high chain link fence(s), with possible animal exclusion modifications if needed, will be constructed around the substation per the PG&E standard. Within the GKR Corridors in the interior of the Project Footprint, smooth wire fencing approximately 40-inches tall with minimum 12-inch spacing between the top two wires and the bottom wire approximately 18-inches above ground will be utilized to prevent unauthorized access into these areas.

Vegetation Management and Fire Suppression

After construction, the Applicant will implement a controlled grazing plan to manage annual grassland fuel loading and heights within the Project Footprint, and to control vegetation for fire deterrence. Sheep and/or goats may be utilized in the array areas reducing undesirable vegetation that may increase the likelihood of grass fire. Under the grazing plan the areas under and around the solar arrays will be grazed as necessary, to reduce vegetation prior to the start of the fire season.

Construction Duration

The Project will be constructed during an approximately 18-month construction schedule. Construction activities will occur between sunrise and sunset (as published by the National Oceanic and Atmospheric Administration). No ground-disturbing activities (including but not limited to grading, pile driving, or trenching) will take place from sunset to sunrise. Night-time construction activities will be limited to the following:

- Minor non-ground-disturbing activities such as commissioning and maintenance activities to be performed when PV arrays are not energized;
- Interior use of the operations and maintenance facility;
- Unanticipated emergencies (defined as an imminent threat to life or a significant property interest), including non-routine maintenance that requires immediate attention;
- Special status species impact avoidance and minimization activities (e.g., GKR trapping and SJKF radio telemetry); and
- Security patrols.

Personnel/Traffic

The workforce at the Project during construction will vary based on the work activities conducted at the site at particular times; however, the estimated number of individuals will range from 100–500 individuals during the day and 20–50 individuals at night.

The Applicant intends to construct the Project over approximately an 18-month period and will encourage employees to carpool to and from the areas of Hollister, San Benito County, and Fresno County that are located between 10 and 60 miles from the Project.

The Project will generate the greatest amount of personnel auto traffic during the arrival of employees for the day work shift and during the departure and arrivals of employees from shift change.

The expected truck traffic generated by the Project will predominately be composed of trucks delivering solar panels, materials, and equipment to the site. It is anticipated that an average of 120 large trucks will access the Project Footprint on a daily basis to deliver materials and equipment. It is assumed that the trucks will arrive to the Site evenly distributed throughout daylight hours.

During the O&M portion of the Project, it will operate/generate electricity seven days a week during daylight hours and will require 10 full time employees initially and up to 50 full-time employees at build-out.

General O&M Activities

The Project will be in operation for at least 30 years, with the possibility of a subsequent re-powering for additional years of operation (although the term of this ITP is as is stated on page 1). The Project will operate seven days per week during daylight hours. Operational activities will consist of monitoring system operational status, tracking system controls and mechanical equipment, performance, and diagnostics. Operations activities will include meter reading and production reporting by the Supervisory Control and Data Acquisition (SCADA) system, along with updating O&M manuals and activities.

Security personnel will be on-site 24 hours every day, working in approximately 8-hour shifts.

Once installation is complete and the Project is fully operational, all traffic will enter at access points along Little Panoche Road. The SCADA system will identify areas that are underperforming; these will be checked as required using Project roads and transportation corridors. Damaged or underperforming PV panels will be replaced as required; mechanical fasteners will be replaced as needed. Inverters that are underperforming or have stopped working will be diagnosed by the electrician and, if required, an inverter technician will be

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

brought on-site. The maintenance staff will traverse the site as necessary, utilizing Project roads and transportation corridors and primarily lightweight vehicles or all-terrain vehicles. Ground disturbing activities during operations will be limited to repair or replacement of buried electrical lines and equipment, repair to foundations if needed, or other similar underground features that may malfunction or otherwise warrant replacement if not performing to the designed standard.

Solar Panel Washing

To optimize performance of the Project, the PV panel surfaces are expected to be washed approximately twice annually during the dry season, as needed. The water for washing will be filtered and no chemicals will be added to the water. Water will be placed into water trucks or water tanks that can be pulled behind a lightweight vehicle. Hoses will be connected to the water tanks and water will be sprayed at a low pressure on the panels. Panels will be brushed off as needed based on the amount of collected dirt or dust. A squeegee may be used to wipe the panels after washing. In the event that material on the panels is dry and can be blown off without water, air will be used to remove the buildup.

Permanent Lighting

During construction, localized and portable lighting will be used where the work is occurring as needed. Lighting will have a power switch to turn off lights when not in used.

During operation of the Project, motion-sensor lighting will be used at the main entrance, substation, and switching station. The lighting will consist of energy-efficient lamps that will only be lit when human activity is detected. Motion sensors will have sensitivities set to avoid activating the lights when animal activity is occurring. This will be done to prevent startling animals and creating false alarms for security personnel. Constant low-level lighting may be required at the O&M building for security and safety. This will be a single lamp source near the entrance of the O&M building, which will be activated through a timer. All lighting will have a power switch to conserve energy when the lighting is not required. All lighting will point downward and be shielded to preserve dark skies, and will adhere to San Benito County's Lighting Ordinance (SBCo 19.31.003-009).

Wetland Creation/Enhancement on Conservation Lands

To mitigate wetland impacts associated with Project construction, the Applicant will preserve, create and enhance aquatic resources within the Conservation lands.

The Applicant will enhance approximately 12.01 acres of water resources through, creation of California tiger Salamander (CTS) habitat, cattle exclusion, revegetation, and removal of debris. These enhancement activities are described in the Applicant's Wetland Mitigation and

Incidental Take Permit
No. 2031-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

The wetland mitigation activities will include the enhancement/creation of approximately 12.01 acres of drainages by trash removal (0.40 acre), creation of three CTS pond habitats (0.40 acre), pool enhancement to offset vernal pool impact (0.05 acre), and grazing exclusion from portions of Panoche Creek (11.16 acres).

Covered Species Subject to Take Authorization Provided by this ITP:

This ITP covers the following species:

Name	CESA Status
1. California tiger salamander (<i>Ambystoma californiense</i>) (CTS)	Threatened ³
2. San Joaquin antelope squirrel (<i>Ammospermophilus nelson</i>) (SJAS)	Threatened ⁴
3. Giant kangaroo rat (<i>Dipodomys ingens</i>) (GKR)	Endangered ⁵
4. San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) (SJKF)	Threatened ⁶

These species and only these species are the "Covered Species" for the purposes of this ITP.

Impacts of the Taking on Covered Species:

Project activities and their resulting impacts are expected to result in the incidental take of individuals of the Covered Species. The activities described above expected to result in incidental take of individuals of the Covered Species include the earthwork activities (land clearing, grading, trenching, potholing, auguring, directional drilling, stockpiling of spoils, and backfilling and compacting); laying and compacting road base material; Project-related vehicle traffic on Little Panoche and Panoche Roads, interior Project roads, and on private and public dirt roads and off-road travel for constructing the PG&E activities; excavation of Covered Species burrows; translocation of Covered Species; pile driving or vibrating posts; habitat conversion; installation and maintenance of permanent and temporary stormwater materials; completing the wetland and riparian enhancement activities; constructing the CTS mitigation pond; and the planned and unplanned O&M activities (collectively, Covered Activities).

³ See Cal. Code Regs. tit. 14 § 670.5, subd. (b)(3)(G).

⁴ See *Id.*, subd. (b)(6)(B).

⁵ See *Id.*, subd. (a)(6)(C).

⁶ See *Id.*, subd. (b)(6)(E).

Incidental take of individuals of the Covered Species in the form of mortality ("kill") may occur as a result of Covered Activities such as earthwork, pile driving or vibrating posts into the ground, vehicle traffic, entombment in burrows or excavations; entrapment in silt fence or other stormwater materials and subsequent desiccation (of CTS); desiccation of juvenile CTS under stockpiled materials such as pallets of solar panels, or crushing or desiccation of CTS juveniles when such materials are moved; flooding of upland areas as a result of surface flow redirections; and stress, predation, starvation, or desiccation during or following translocation. Incidental take of individuals of the Covered Species will also occur from the Covered Activities in the form of capture during translocation of the Covered Species. The areas where authorized take of the Covered Species is expected to occur include the 1,688-acre Project Footprint, access routes on public and private roads within the Panoche Valley and Little Panoche Valley (vehicle strikes only), the AT&T interconnection along Little Panoche Road, and eastward along Panoche Road (vehicle strikes only) and the PG&E work areas to the intensive agriculture areas west of Interstate 5 (collectively, the Project Area).

Take of all Covered Species is expected to occur on Little Panoche Road and Panoche Road, and could occur on any other access route within the Panoche Valley, due to vehicle strikes. The Project will substantially increase the traffic volumes during construction and operations on roads where there are currently only a handful of vehicle trips per hour. The peak commute times proposed for the Project coincide with high activity periods for the nocturnal Covered Species (SJKF, CTS, and GKR). The substantial increase in traffic is expected to cause a concomitant increase in vehicle strikes, which may have a greater effect on the SJKF population here than in other, larger populations. Additionally, security patrols and other O&M-related vehicle trips will place traffic on Project roads where there are currently no roads, and where ranchers do not drive when it is raining. These vehicle trips on proposed and existing routes are expected to increase mortality of CTS during the O&M period. A reliable estimate of GKR fatalities from vehicle strikes during construction or O&M is not available, but several each year will likely be taken on the existing public roads during the pre-sunrise and post-sunset commute times. SJAS could also be taken during daylight hours on roads, but any estimate of that take will be similarly imprecise.

The Project is expected to cause the permanent alteration or loss of 1,688 acres of habitat for the Covered Species, and temporary disturbance within an additional 466 acres of habitat for the Covered Species. Impacts of the authorized taking also include adverse impacts to the Covered Species related to temporal losses, increased habitat fragmentation and edge effects, and the Project's incremental contribution to cumulative habitat loss, alteration and fragmentation for all of the Covered Species.

Further GKR Impacts Discussion

The Project is expected to take an estimated 349 to 998 individual GKR during translocation.

The estimate of GKR take during translocation is based on the results of surface surveys completed for the Project in 2013. The 2013 surveys detected GKR sign in 285, 30m x 30m survey cells within the general area that contained the current Project layout. The number of precincts within those occupied survey cells was not determined. Density estimates have to be used in lieu of precinct counts, which makes estimating the number of GKR present at that time very imprecise. Additional imprecision comes from the fact that occupancy of a precinct can vary throughout the year, and surface surveys are known to commonly produce false negatives for this species. The range of estimates discussed below considers both what Permittee considered to be "active" and a more conservative estimate that factors in the imprecision of determining "active" vs "inactive" based on surface sign alone.

Permittee considered 197 of the 285 cells with GKR sign to be "active," with an estimated 3.5 GKR per cell. That would equal 690 GKR in the Project Footprint. If the density estimate from Williams *et al.*⁷ (8 GKR/acre) were used to estimate the number of GKR in each cell, which is based on trapping data and precinct counts in the region, then the total would be 349 GKR in the "active" cells. Assuming that all cells with GKR sign could be occupied, or "active," the estimated number of GKR in the Project Footprint would be 998 with Permittee's density estimate, or 505 GKR with Williams *et al.*'s density estimate (Table 3).

Table 3. Range of GKR Estimates in the Project Footprint

GKR Survey Results	With Permittee Density Estimate (3.5 GKR/cell)	With Williams <i>et al.</i> Density Estimate (approx. 8.0/acre or 1.8/cell)
197 "active" cells	690	349
285 total cells with GKR Sign	998	505

Further imprecision comes from the fact that some areas with GKR have been avoided through the Project design. At the same time, there is some indication that GKR may be continuing to recolonize and expand their numbers within the Project Footprint since the 2013 surveys were completed. Survey results at the similar California Valley Solar Ranch (CVSR), by comparison, found substantially different GKR distribution and increased numbers between two consecutive years prior to construction. CDFW does not have data to refine the

⁷ Williams, D.F., and M.K. Davis, and L.P. Hamilton. 1995. Distribution, population size, and habitat features of giant kangaroo rates in the northern segment of their geographic range. California Department of Fish and Game Bird and Mammal Conservation Program Report 95-01.

estimates based on the changes in GKR distribution or abundance since 2013 and the recent design changes. Therefore, CDFW estimates that the Project could result in the take of between 349 and 998 GKR during translocation from the Project Area.

The Project footprint was cultivated historically and is being recolonized by GKR from relict populations in the eastern Panoche Valley toward the west. Surveys in the 1980s and 1990s that purported to document the extent of the species range in the Panoche Valley did not document them on the Project Footprint, while citing cultivation as a cause of extirpation in the area.⁸ There is a measurable east-west gradient of GKR abundance within the Panoche Valley. Densities are higher in the eastern areas that show no evidence of cultivation and are known to have been occupied for decades, and lower moving west into the formerly cultivated areas. Their distribution on the Project Footprint and other parts of the Panoche Valley often reflects anthropogenic factors, indicated by the concentrations of precincts along road edges and fence lines, and the abrupt changes in density at property boundaries. The Project's survey results show that areas that have been recolonized in the west (or perhaps undetected by earlier surveys) often follow road edges and fence lines where the plow would have missed them or piled loose soil conducive to burrow establishment. The surveys also found concentrations in areas that were either not cultivated due to flood risk or in which more recent alluvial deposits have made them conducive to more rapid recolonization than the cultivated uplands with more compacted soils.

The recolonization of abandoned agricultural fields from adjacent, relict populations has been documented elsewhere. The same circumstances preceded the extensive recolonization of the Carrizo Plains National Monument, which now supports the majority of the GKR population and highest known densities of GKR. This and the pattern of recolonization evident west of Silver Creek Ranch suggest that the local GKR population is not at equilibrium and that the number of GKR observed on the Project Footprint is less than what the site is capable of supporting. CDFW expects that the local GKR population would continue to grow within the Project Footprint if the Project were not constructed. It is difficult to estimate the loss of capacity and recovery potential that the Project's habitat impacts will cause. However, in terms of aspect, slope, ruggedness, soil types, drainage, precipitation, and vegetation, the Project Footprint is identical to adjacent areas in the Panoche Valley that support persistently high densities of GKR. This suggests that the site is capable of supporting similarly high densities.

CDFW does not expect GKR to occupy the areas under solar panel arrays at the same density that they would if the area were left undisturbed. GKR do not typically select precinct

⁸ Williams, D. 1992. Geographic distribution and population status of the giant kangaroo rat, *Dipodomys ingens* (Rodentia, Heteromyidae). Pp. 301-328, in *Endangered and sensitive species of the San Joaquin Valley, California: their biology, management, and conservation* (D.F. Williams, S. Byrne, and T.A. Rado, eds.). The California Energy Commission, Sacramento, 388 pp.

locations with overhead cover (e.g., under trees), GKR expend considerable energy eliminating vegetation that will create overhead cover within their precincts, and there is evidence that solar panel arrays substantially alter microenvironmental variables in ways that are not conducive to supporting GKR.⁹ Evidence of GKR recolonization has been observed after construction within the solar panel arrays at the California Valley Solar Ranch (CVSR) project; however, their numbers have not been quantified, and the panels have been in place for only two years, in an extended drought. Thus it should not be assumed from the initial anecdotes there that GKR will persist in meaningful numbers over the long term at that location or at other solar development sites. The long-term effects remain unknown. A similar grassland kangaroo rat species initially persisted within a much smaller (30 acres) solar array in San Diego County, but then was extirpated when vegetation density increased, while other rodents became more abundant.^{10,11}

GKR translocation efforts at CVSR provided evidence that translocated GKR individuals can survive and persist at the receiver sites. However, the efforts there did not collect the data necessary to conclude or reasonably infer that the translocated individuals were the source of self-sustaining colonies or accelerated recolonization. The translocated individuals generally survived, but whether they reproduced and their offspring survived was not measured. The CVSR project area was generally being recolonized naturally following likely extirpation from historic farming activities—the same situation that is evident in the Panoche Valley. The extent to which that natural recolonization accounts for current occupancy of receiver sites was not determined. It is likely that individuals from the surrounding occupied areas dispersed into CVSR's receiver sites. Also not determined was abundance, reproductive rates, or survival of non-translocated individuals (which may or may not be their descendants) in the receiver sites, or of those GKR that are now in solar panel arrays. Additionally, the scientific literature documents that GKR translocations can be initially successful at establishing new, expanding colonies which are then completely extirpated by natural causes, as was the case in another Carrizo Plains GKR translocation project.¹² It should also

⁹ Smith, S.D. 1981. Microenvironmental responses of a Sonoran Desert ecosystem to a simulated solar collection facility. Dissertation. Arizona State University. Smith, S.D. 1984. Environmental effects of solar thermal power systems: analysis of plant invasion into the Barstow 10MWe pilot STPS. Prepared for US Department of Energy Contract No. DOE-AM03-76-SF00012. Smith, S.D., D.T. Patton, and R.K. Monson. 1987. Effects of artificially imposed shade on a Sonoran Desert ecosystem: microclimate and vegetation. *Journal of Arid Environments* 13:65-82.

¹⁰ Uptain, Curtis. Personal communication.

¹¹ O'Farrell, M.J., and C.E. Uptain. 1985. LaJet Solar Energy Project—Phase I impacts of construction and initial operation on Stephens' kangaroo rat (*Dipodomys stephensi*). Prepared for Dr. Donal Hunsaker, San Diego State University; and LaJet Energy Company.

¹² Germano, David J. 2010. Survivorship of translocation kangaroo rats in the San Joaquin Valley, California. *California Fish and Game* 96(1): 82-89.

be noted that there is a long, well-documented history of translocated kangaroo rat individuals generally not surviving translocation and not establishing persistent colonies¹³. Therefore, while the GKR translocated from this Project Footprint can be reasonably expected to survive if the translocation goes well, there is substantially greater uncertainty regarding whether those individuals will establish persistent colonies, increase abundance, or accelerate recolonization on the HM lands. The net result of the translocation from and habitat alteration within the Project Footprint may be essentially a direct, net loss of 1,688 acres of habitat and its GKR population, and indirect loss of function of surrounding areas due to fragmentation.

Further SJKF Impacts Discussion

Based on published Covered Species population density estimates,¹⁴ CDFW estimates that the 1,688 acres of permanently impacted grasslands currently support 1.4 to 3.7 individual SJKF. The total capacity that CDFW estimates will be lost due to the Project's direct habitat impacts is, therefore, between 1.4 and 3.7 SJKF. SJKF are expected to use the Project Footprint during O&M, but not to the extent that they would if left undisturbed. The prey base will change over time in response to increased vegetation growth (e.g. an increase in rabbits and a decrease in heteromyid rodents). Those changes, and the increase in vertical structure and cover within panel arrays, may favor predators and competitors, namely bobcats and coyotes. Both of those SJKF predators have been observed using solar panel arrays in the Carrizo Plains, although SJKF are also using the panel arrays. In the Carrizo Plains, the solar projects have only recently been completed, and the panels have been in place only during drought years. Nonetheless, an increase in vegetation and soil moisture in panel arrays is evident. Quantitative monitoring to understand the effects of these interactions on SJKF has only recently begun.

Another consideration is that the panel spacing, height, and widths for the Project are not specific. If those physical attributes of the panels are different, then they will cause different responses in microenvironmental variables within the arrays than at the Carrizo solar projects.

Further CTS Impacts Discussion

CTS are widely dispersed throughout the Project Footprint. The only exception may be the southeastern portion, where surveys of the potential breeding sites were not conclusive.

¹³ Tennant, Erin N., D.J. Germano, and B.L. Cypher. 2013. Translocating endangered kangaroo rats in the San Joaquin Valley of California: recommendations for future efforts. *California Fish and Game* 99(2):90-103.

¹⁴ See, e.g., Haight, R.G., B. Cypher, P.A. Kelly, S. Phillips, H.P. Possingham, K. Ralls, A.M. Starfield, P.J. White, and D. Williams. 2002. Optimizing habitat protection using demographic models of population viability. *Conservation Biology* 16:1386-1397; White, P.J. and K. Ralls. 1993. Reproduction and spacing patterns of kit foxes relative to changing prey availability. *J. Wildlife Management* 57:861-867.

Because surveys there were inconclusive, it must be assumed that CTS could be present throughout the entirety of the Project Footprint. This is a reasonable assumption considering that CTS larvae have been found in most potential breeding locations in the Project Area where any reasonable survey effort was made, and the fact that CTS are typically widely dispersed in the uplands within approximately 1.2 miles of breeding sites. That buffer distance from the documented breeding sites puts nearly the entire Project Footprint within the known range of CTS despite the inconclusive survey results in the southeastern part of the Project Footprint.

The direct habitat loss from permanent features such as the substation and O&M facilities is relatively limited compared to the remainder of the Project where CTS are expected to persist at least in low numbers in the solar panel arrays. The greater impact will be fatalities during construction which could be extensive based on experiences at other development sites, and from the increase in vehicle strikes both during construction and O&M activities.

Further SJAS Impacts Discussion

The Project's habitat alteration effects on SJAS are unknown. They will be displaced and potentially killed during construction and O&M activities, but whether they will use solar panel arrays is debatable. There are no data from similar development projects on which to base an analysis. SJAS occurred on the periphery of the CVSR site, beyond the disturbance area, before construction and their distribution appears to be about the same after construction.

Although SJAS do occur in open grasslands such as the Project Footprint, they are generally more abundant and persistent where there are low and sparse shrubs. That type of structure is different from relatively dense, overhead cover that solar panels create. SJAS are not associated with overhead structure, such as trees, in their natural habitat; but whether that is because trees do not typically occur where SJAS occur or SJAS select sites without trees is not known. SJAS are typically out in the open or in a burrow, as opposed to under shrubs. SJAS also fare well in open grasslands that have abundant GKR burrows, which SJAS modify and occupy.

It is reasonable to assume that SJAS are recolonizing the Project Footprint, much as GKR are recolonizing it, and that the Project may hamper and reverse that recolonization. It may also be that the solar development will favor the larger California ground squirrels, which may increase and displace SJAS from within the Project Footprint and the adjoining habitat fragments resulting from Project implementation. Whether translocation will be successful by any measure is unknown. Thus, the net result of the translocation from and habitat alteration within the Project Footprint may be essentially a direct, net loss of 1,688 acres of habitat and its SJAS population, and indirect loss of function of surrounding areas due to fragmentation and increase in competitors.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

Incidental Take Authorization of Covered Species:

This ITP authorizes incidental take of the Covered Species and only the Covered Species. With respect to incidental take of the Covered Species, CDFW authorizes Permittee, its employees, contractors, and agents to take Covered Species incidentally in carrying out the Covered Activities, subject to the limitations described in this section and the Conditions of Approval identified below. This ITP does not authorize take of Covered Species from activities outside the scope of the Covered Activities, take of Covered Species outside of the Project Area, take of Covered Species resulting from violation of this ITP, or intentional take of Covered Species (except for capture and relocation of Covered Species as authorized by this ITP).

Conditions of Approval:

Unless specified otherwise, the following measures apply to all Covered Activities within the Project Area, including areas used for vehicular, aircraft (e.g. helicopter) ingress and egress, staging and parking, and earth-disturbing and noise and vibration generating activities that will cause take. CDFW's issuance of this ITP and Permittee's authorization to take the Covered Species are subject to Permittee's compliance with and implementation of the following Conditions of Approval:

1. **Legal Compliance:** Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of this ITP or adopted thereafter.
2. **CEQA Compliance:** Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Biological Resources section of the Environmental Impact Report and Supplemental Environmental Impact Report (SCH No.: 2010031008) certified by the County of San Benito on November 10, 2010 and May 19, 2015, respectively, as lead agency for the Project pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).
3. **LSA Agreement Compliance:** Permittee shall implement and adhere to the mitigation measures and conditions related to the Covered Species in any Lake and Streambed Alteration Agreement (LSAA) issued in response to Notification No. 1600-2014-0042-R4, or any subsequent notification submitted for the Project pursuant to Fish and Game Code section 1600 et seq.
4. **ESA Compliance:** Permittee shall implement and adhere to the terms and conditions related to the Covered Species in the Biological Opinion for the Panoche Valley Solar Farm, San Benito County, California (File Number 2009-00443S), issued pursuant to the Federal Endangered Species Act (ESA), as those terms and conditions become binding conditions of the Section 404 permit to be issued by the U.S. Army Corps of Engineers pursuant to the Clean Water Act. For purposes of this ITP, where the terms and conditions for the Covered Species in the federal authorization are less protective of the

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

Covered Species or otherwise conflict with this ITP, the conditions of approval set forth in this ITP shall control.

5. Fully Protected Species Compliance: Permittee shall adhere strictly to the prohibition in Fish and Game Code Section 5050 against the taking or possessing of any fully protected reptile or amphibian. In performing the Covered Activities under this ITP, Permittee shall not take or possess the fully protected blunt-nosed leopard lizard (*Crotaphytus wisleizenii silus* = *Gambelia silus*) in any manner at any time. Any take or possession of blunt-nosed leopard lizard by Permittee or its contractors or agents may result in a stop-work order and suspension and/or revocation of this ITP in addition to any criminal and/or civil prosecution under Fish and Game Code Section 5050, Fish and Game Code Section 2014, or any other provision of law.

6. ITP Time Frame Compliance: Permittee shall fully implement and adhere to the conditions of this ITP within the time frames set forth below and as set forth in the Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment 1 to this ITP.

7. General Provisions:

7.1. Designated Representative. Before starting Covered Activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.

7.2. Designated Biologists. Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of Designated Biologists at least 5 business days before starting Covered Activities. Permittee shall ensure that the Designated Biologists are knowledgeable and experienced in the biology, natural history, collecting, and handling of the Covered Species. Permittee shall ensure that the Designated Biologists are experienced in excavating burrows to minimize mortality of CTS, GKR, and SJKF; trapping SJAS and GKR; and monitoring construction activities under an ITP for CTS, and on large-scale (>640 acres), multi-year construction projects for SJAS, GKR, and SJKF. The Designated Biologists shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain CDFW approval of the Designated Biologists in writing before starting Covered Activities, and shall also obtain approval

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

in advance in writing if a Designated Biologist must be changed at any time during the term of this ITP.

- 7.3. Designated Biologist Authority. To ensure compliance with the Conditions of Approval of this ITP, the Designated Biologists shall have authority to immediately stop any activity that does not comply with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species.
- 7.4. Biological Monitors. The Designated Biologists may authorize Biological Monitors to assist in ITP compliance efforts, under the direct supervision of the Designated Biologists, where specified in the Conditions of Approval of this ITP. Each Designated Biologist is responsible for ensuring that any biological monitor working under his or her supervision is knowledgeable and experienced in the biology and natural history of the Covered Species, the Conditions of Approval of this ITP, the definition of "take" in CESA, and in implementing standard avoidance and minimization measures used on construction projects in Covered Species habitat.
- 7.5. Education Program. Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Designated Biologists that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least every six months during the construction phase and then annually during O&M for long-term and/or permanent employees that will be conducting work in the Project Area.
- 7.6. Construction Monitoring Notebook. The Designated Biologists shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

- 7.7. Trash Abatement. Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in closed (animal proof) containers and removed regularly to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs. The permanent trash receptacle(s) on the site will be enclosed in a wildlife-safe fenced enclosure and Permittee shall ensure the containers are closed and in good working order.
- 7.8. Dust Control. Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles. Permittee shall not apply dust suppressant, surfactant, or soil binders or stabilizer products that may be harmful to Covered Species in upland or aquatic environments. Permittee shall obtain CDFW's written permission before applying any dust suppressant besides water or gravel. Permittee shall provide all available documentation of each product's safety or hazards to wildlife to CDFW with any such request for approval.
- 7.9. Erosion Control Materials. Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting, photodegradable mesh (erosion control matting) or similar material, in potential Covered Species' habitat. Permittee shall only deploy erosion control mats, blankets, or coir rolls that consist of only natural-fiber, biodegradable materials.
- 7.10. Delineation of Property Boundaries. Before starting Covered Activities along each part of the route in active construction phase or ground-disturbing O&M activities, Permittee shall clearly delineate the boundaries of the Project Area with wildlife-permeable fencing, stakes, or flags. Permittee shall restrict all construction phase or ground-disturbing O&M Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of construction phase or ground-disturbing O&M Covered Activities in that area.
- 7.11. Delineation of Habitat. Permittee shall clearly delineate habitat of the Covered Species to be avoided within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat. This includes all areas within the solar array buffer areas and fence construction buffer areas that will not be used for access or staging.
- 7.12. Project Access. Project-related personnel shall access the Project Area using existing routes, and routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas.

Permittee shall ensure that vehicle speeds do not exceed 20 miles per hour to avoid Covered Species on or traversing the roads. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.

7.13. Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 7.11 of this ITP.

7.14. Hazardous Waste. Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.

7.15. CDFW Access. Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control, and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.

7.16. Refuse Removal. Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.

8. Monitoring, Notification and Reporting Provisions:

8.1. Notification Before Commencement. The Designated Representative shall notify CDFW in writing 5 business days before starting Covered Activities and shall document in the notification compliance with all pre-Project Conditions of Approval before starting Covered Activities. Upon receipt of the notification, if CDFW determines that all pre-Project Conditions of Approval are complete, CDFW may, in its discretion, authorize Covered Activities to start sooner than 5 business days after its receipt of the notification.

- 8.2. Notification of Non-compliance. The Designated Representative shall immediately notify CDFW in writing if it determines that Permittee is not in compliance with any Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall report any non-compliance with this ITP to CDFW in writing within 24 hours.
- 8.3. Compliance Monitoring. A Designated Biologist shall be on-site for the duration of the day on which ground disturbing activities are initiated during construction, planned maintenance, or unplanned maintenance activities and on any day when construction, planned maintenance, or unplanned maintenance activities occurs in any footprint with vegetation, small mammal burrows, and/or where potential Covered Species dens or burrows do or may occur. The Designated Biologist on site shall have been approved by CDFW for the Covered Species which could be taken during the Covered Activities which would occur on that day. Due to the urgent/emergency nature of forced outages, the Designated Biologist(s) may not be immediately on-site during forced outage activities that result in ground or vegetation disturbance. The Designated Biologist(s) shall be notified of forced outage activities that result in ground or vegetation disturbance, or where small mammal burrows, and/or where potential Covered Species dens or burrows do or may occur, as soon as is practicable and shall be present to monitor ground or vegetation disturbing activities, or where small mammal burrows, and/or where potential Covered Species dens or burrows do or may occur, as soon as is practicable. The Designated Biologist(s) or Biological Monitor(s) shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of this ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Designated Representative or Designated Biologist(s) shall prepare daily written observation and inspection records summarizing oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by this ITP. During the construction period, The Designated Biologist(s) or Biological Monitors shall conduct daily compliance inspections. During O&M, the Designated Biologist(s) or biological monitors under the supervision of the Designated Biologist(s) shall conduct monthly compliance inspections.
- 8.4. As-Built Development Plans. Permittee shall submit as-built development plans to CDFW within ninety (90) days of completing construction. The as-built plan sheets shall delineate and quantify the extent of all permanent Project features, including roads, buildings, power poles, solar panels, fence lines, and all other facilities and features associated with the Project. The plan scale shall be 1":250' (one inch to 250 feet) or smaller. Plans shall be derived from survey data acquired after construction

and shall be verified by the Designated Biologist(s). Permittee shall submit the plans in Portable Document Format (PDF) or a similar electronic format and as shapefiles for use in ArcMap.

- 8.5. Monthly Compliance Reports during Construction. During the construction phase, the Designated Representative or Designated Biologist(s) shall compile the observation and inspection records identified in Condition of Approval 8.3 into a monthly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Monthly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of this ITP's approval, the CDFW Regional Representative is Dave Hacker (david.hacker@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.
- 8.6. Annual Status Report. Permittee shall provide CDFW with an Annual Status Report (ASR) no later than March 31 of every year beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Monthly Compliance Reports for that year identified in Condition 7.5; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing, and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) a summary of findings from pre-construction surveys (e.g., number of times a Covered Species or a den or burrow was encountered, location, if avoidance was achieved, if not, what other measures were implemented); (7) beginning and ending dates of O&M, emergency related, and other Covered Activities undertaken during the reporting year; (8) all relevant information concerning Permittee's efforts to terminate mineral rights on the HM lands pursuant to Condition 9; (9) information about other Project impacts on the Covered Species; (10) an accounting, description of the nature of disturbance within, and delineation of the areas subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance, provided in both paper map and shapefile formats; and (11) information about other Project impacts on the Covered Species.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

8.7. CNDDDB Observations. The Designated Biologist(s) shall submit all observations of Covered Species in new areas (i.e. where they have not been previously reported to the CNDDDB) to CDFW's California Natural Diversity Database (CNDDDB) within 60 calendar days of the observation. The Designated Biologist(s) shall include copies of the submitted forms with the next monthly Compliance Report or ASR, whichever is submitted first relative to the observation. For CTS, this measure applies to all upland and aquatic observations. Point observations may be summarized into larger polygons.

8.8. Final Mitigation Report. No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Monthly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.

8.9. Notification of Take or Injury. Permittee shall immediately notify the Designated Biologist if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (559) 243-4005 x151. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.

8.10. SJAS and GKR Translocation Plans. Permittee shall prepare and implement (after CDFW's written approval of the plans) plans to trap and relocate GKR and SJAS from work areas as described in Conditions of Approval 9.23 and 9.25.

9. Take Minimization Measures:

The following requirements are intended to ensure the minimization of incidental take of Covered Species in the Project Area during Covered Activities. Permittee shall

implement and adhere to the following conditions to minimize take of Covered Species:

- 9.1. Fences. Permittee shall not install wildlife exclusion fencing except as expressly stated in Conditions of this ITP. Permittee shall ensure that all fences during construction and O&M will generally be permeable for Covered Species. All solar array perimeter fences shall be permeable at all locations to all Covered Species. Impassable fences are permitted only for wildlife exclusion purposes as discussed below or when Permittee has obtained written concurrence from CDFW to install impermeable fencing to avoid a health and safety concern for the Covered Species or a risk to human health, safety, or property.
- 9.1.1. Permittee may install temporary SJKF exclusion fencing around the temporary laydown yards (Figure 2) and up to 50 acres of staging areas as described in Condition of Approval 9.3.
- 9.1.2. Permittee may install permanent SJKF exclusion fencing around the electrical substation and switchyards.
- 9.1.3. Any chain link fence intended to exclude SJKF shall have vinyl slats or other material installed from the bottom of the fence up to at least three feet from the ground to prevent kit foxes from getting their heads stuck in the fence.
- 9.1.4. Permittee shall install and maintain in good working condition a fence to exclude all Covered Species from each construction water pond until the ponds are removed at the end of the construction phase. A Designated Biologist or Biological Monitor shall inspect the ponds and the interior of the fencelines for any trapped or killed Covered Species at the beginning and end of each work day.
- 9.2. Stockpiling Materials. Permittee shall stockpile all materials and equipment in a manner that discourages Covered Species use. In all locations, bundled or loose materials not on pallets shall be placed on skids, as opposed to directly on the ground, to elevate them and discourage use by dispersing CTS. Pallets or materials on skids outside of SJKF exclusionary fencing shall be spread out to avoid creating extensive galleries attractive to SJKF, or placed on taller skids to elevate them high enough from the ground to discourage SJKF using the materials as a den.
- 9.3. Use of and Staging in Temporary Impact Areas. This condition does not apply to the temporary laydown yards shown on Figure 2. Permittee shall minimize Covered Species habitat disturbance in the temporary impact areas shown on Figure 4 to the maximum extent practicable. Permittee shall avoid all GKR burrows or precincts in the temporary impact areas by at least 50 feet while conducting Covered Activities in the

Incidental Take Permit
No. 2081-2014-005-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

temporary impact areas. Permittee shall conduct no earthwork in the temporary impact areas except as needed to construct, utilize, and remove the temporary water ponds. Permittee shall not stockpile materials or stage equipment in the temporary impact areas for more than 24 hours. Permittee may elect to utilize up to 50 acres within the temporary impacts area (in addition to the Temporary Laydown Yards already identified) within which to stockpile materials and equipment for greater than 24 hours.

- 9.4. Road and Fence Construction and Buffers. Permittee shall limit temporary disturbance from road construction activities to the width of one full-size pickup truck on either side of the permanent footprint of the road surface, prism, and/or cut slopes that are necessary to route the road. Permittee shall access and construct perimeter fences with only rubber-tired vehicles or on foot, and shall conduct no earthwork for the perimeter fences except for postholing. All vehicles will avoid GKR precincts by at least 50 feet while constructing perimeter fences. No GKR precincts, SJAS burrows, or SJKF burrows shall be excavated for perimeter fence construction.
- 9.5. Project Area Lands Management. Permittee shall manage the solar energy generation facility compatibly with Covered Species to the maximum extent practicable. Permittee shall manage vegetation primarily through grazing to control vegetation height and density to the extent practicable to maximize the potential for any residual habitat value for Covered Species during O&M in the Project Area and adjacent HM lands. If the performance monitoring required in Condition of Approval 10.7 detects significantly less proportional use of "on-site" HM Lands and adjacent off site habitat by SJKF compared to intact habitat areas, or significantly greater SJKF predation in the "on-site" HM Lands and adjacent habitat, then Permittee shall consult with CDFW and the USFWS to determine additional management actions and monitoring that Permittee shall implement on the Project Area, if necessary, including management of vegetation, SJKF or predator prey bases, and predator subsidies.
- 9.6. Treatment of On-Site Conservation Lands during Construction and O&M. Permittee shall not disturb ground or vegetation on the on-site conservation lands area (Figure 6) beyond the limits of disturbance depicted in Figures 2 and 4. Upon commencement of ground- or vegetation-disturbing activities, Permittee shall implement the grazing to be approved for HM lands until the on-site conservation lands have been protected in perpetuity as required by Condition of Approval 10.
- 9.7. Equipment Fueling. Mobile equipment fueling and maintenance shall occur at least 100 feet from Covered Species dens, burrows, or precincts. Permanent and semi-permanent equipment fueling and maintenance areas shall be initially located at a distance of at least 100 feet from Covered Species dens, burrows, or precincts, and shall include permanent containment devices that will preclude fuel or other liquids

from exiting the equipment fueling maintenance area in the event of a spill or leak. Sufficient spill containment and cleanup equipment shall be present at all mobile, temporary, and permanent equipment fueling locations.

- 9.8. Vehicle Parking. Permittee shall not park vehicles on top of Covered Species dens, burrows, or precincts except where they have been excavated to translocate Covered Species in the temporary laydown yards shown on Figure 2 and permanent impact areas. Vehicles left overnight shall not be located within 50 feet of GKR precincts to the greatest extent practicable.
- 9.9. Lighting. No permanent or temporary, fixed, exterior lighting, including motion-triggered security lighting, shall cast light on Covered Species habitat beyond the footprint of permanent or temporary Project facilities between sunset and sunrise. Motion-triggered lighting (including visible spectrum and infrared) shall not be used in solar panel arrays or elsewhere in the Project Area except within or at the perimeter of permanent and temporary buildings or covered assembly areas. Exterior, fixed lighting at all Project facilities shall be turned on only when people are present unless required by federal, state, or local law.
- 9.10. Preventing Entrapment in Pipes or other Structures. Permittee shall ensure that all pipe, conduit, culverts, or similar materials stockpiled or installed in the Project Area with a diameter of 1.5-18 inches will be capped or otherwise enclosed at the ends to prevent covered species entry (excepting road culverts after their installation). A Designated Biologist or Biological Monitor shall thoroughly inspect all such materials for Covered Species before they are moved, buried, or capped. If a Covered Species is discovered inside such material, that section of material shall not be moved until the animal has escaped on its own. Permittee shall not leave any permanent pipes, conduit, electrical cabinets, or similar materials or structures open where Covered Species may enter them and become trapped.
- 9.11. Covered Species Inspection. Workers shall inspect for Covered Species under vehicles and equipment every time the vehicles and equipment are moved. If a Covered Species is present, the worker shall wait for the Covered Species to move on its own to a safe location. Alternatively, the Designated Biologist(s) shall be contacted to determine if the animal may be safely moved within the conditions of the ITP.
- 9.12. Firearms and Dogs. Permittee shall prohibit firearms and domestic dogs from the Project Area and site access routes during Covered Activities, except for herding dogs and scent dogs as provided below, and firearms in the possession of authorized security personnel or federal, state, or local law enforcement officials.

- Permittee may use herding dogs (e.g., Australian shepherds, Queensland heelers) on the Project Footprint when necessary to control movement of livestock and when herding dogs are under voice, hand signal, or other direct control of a handler/shepherd/livestock operator.
 - Permittee shall not allow livestock guardian dogs (e.g., Great Pyrenees, Pyrenean mastiff) or any other dogs in the Project Area at any time. Permittee shall not allow any dog to roam freely at any time in the Project Area.
 - Scent-detection dogs may be used in the Project Area when under the control of a qualified handler in the implementation of conservation and monitoring tasks required by Project approvals and permits or for biological research activities.
 - All dogs shall be immunized against rabies, parvovirus, and distemper, and Permittee shall have the immunization records on site for all dogs that are present in the Project Area.
- 9.13. Night Work. Covered Activities shall occur during daylight hours only (sunrise to sunset) except for (1) capacitor bank wiring, connecting, and testing; (2) planned and unplanned maintenance activities that must occur after dark to ensure PV arrays are not energized; (3) interior use of the O&M facility; (4) unanticipated emergencies (defined by an imminent threat to life or a significant property interest), including forced outages and non-routine maintenance or repair requiring immediate attention; (5) security patrols, which are allowed 24 hours a day; or (6) Covered Species tracking, trapping, and/or translocation. Any vehicle traffic necessary during nighttime hours associated with the above activities shall be conducted with extra caution to minimize impacts to Covered Species. CDFW shall be notified as soon as possible and no later than 24 hours after commencement of any emergency night-time O&M activities that are conducted outside of the O&M facility.
- 9.14. Buried Electrical Cables. Permittee shall ensure that the design and installation methods of any buried electrical lines preclude Covered Species electrocution. Permittee shall either install underground lines in conduit or use direct-bury cable of a design that precludes breaching by and electrocution of small mammals. Permittee shall obtain CDFW's written concurrence on each type of underground cable's specifications prior to its installation at the Project Footprint.
- 9.15. Soil Stockpiles. Permittee shall ensure that soil stockpiles are placed where soil will not pass into known or potential Covered Species breeding ponds at or near the Project Area, or into any other "Waters of the State," in accordance with Fish and Game Code 5650. Permittee shall appropriately protect stockpiles to prevent soil erosion.

- 9.16. Materials Inspection. Workers shall thoroughly inspect all construction pipe, culverts, or other similar structures with a diameter of one inch or greater that are stored for one or more overnight periods for the Covered Species before the object is subsequently moved, buried, or capped. If during inspection, an individual of the Covered Species is discovered inside a pipe, culvert, or similar structure, workers shall notify the Designated Biologist and allow the animal to safely escape that section of the structure before moving and utilizing the structure.
- 9.17. Covered Species Injury. If a Covered Species is injured as a result of Covered Activities, the Designated Biologist shall immediately take it to a CDFW-approved wildlife rehabilitation or veterinary facility that routinely evaluates and treats amphibians, small mammals, or canids as appropriate. Prior to the start of Covered Activities, Permittee shall obtain CDFW's written approval of one or more such facilities that routinely evaluate and treat amphibians, small mammals, and canids. Permittee shall bear any costs associated with the care or treatment of such injured Covered Species. Permittee shall notify CDFW of the injury to the Covered Species immediately unless the incident occurs outside of normal business hours. In that event, CDFW shall be notified no later than the next business day. Notification to CDFW shall be via telephone or e-mail, followed by a written incident report. Notification shall include the date, time, location, and circumstances of the incident and the name of the facility where the animal was taken.
- 9.18. Covering, Ramping, and Inspecting Excavations. Permittee shall minimize the potential for Covered Species to become entrapped in excavations to the maximum extent practicable. To prevent inadvertent entrapment of Covered Species or any other animals during the construction phase of the Project, Permittee shall ensure that all excavated, steep-walled holes or trenches are covered, ramped, and inspected as described below. This measure does not apply to burrows excavated for salvaging Covered Species until such excavation is complete and no Covered Species remain in the burrow.
- 9.18.1. Covers. Permittee shall ensure that all trenches, holes, and other excavations with sidewalls steeper than a 1:1 (45 degree) slope are covered or ramped when workers and/or equipment are not actively working in them and at the end of each work day. Covers shall be made of plywood or similar solid material.
- 9.18.1.1. From when all CTS breeding ponds within 1 mile of the excavation are dry in the spring or summer through October 14, and provided that the National Weather Service forecasts less than a 70% chance of precipitation at the Project Footprint within 72 hours, Permittee may elect to install escape ramps instead of covering excavations that are less than 6 feet deep. Escape ramps shall be of native soil or non-slip planks no less than 10 inches wide.

- 9.18.1.2. From October 15 until all CTS breeding ponds within 1 mile are dry in the following spring or summer, and any additional time when the National Weather Service forecasts a minimum 70% chance of precipitation at the Project Footprint within 72 hours, all excavations shall be covered. If the excavation is less than six feet deep, Permittee shall ensure that the edges of the covers are either covered with dirt to prevent CTS from crawling under them or treated as discussed in the following paragraph for excavations that are greater than 6 feet deep.
- 9.18.1.3. If the excavation is greater than 6 feet deep, then at all times of the year, two feet of hardware cloth (or another material approved by CDFW in writing for this purpose for this Project) shall extend beyond the edge of the cover boards. The hardware cloth shall be secured to the edge of the cover boards and to the ground to discourage Covered Species from digging under the edge and becoming injured in a fall. The hardware cloth shall conform to solid ground so that gaps do not exist between the cloth and the ground. Covering gaps with dirt or laying the hardware cloth over loose soil will not satisfy this requirement. The outer edges of the hardware cloth shall be secured to the ground with re-bar, minimum 10-inch soil staples, or similar means every 12 inches to prevent Covered Species from lifting the edges.
- 9.18.1.4. If a situation is encountered that this measure does not anticipate and alternative methods of preventing entrapment or injury in excavations are warranted, then Permittee shall request and obtain CDFW's written concurrence prior to implementing the alternative methods.
- 9.18.2. Inspection of Excavations. The Designated Biologist(s) or Biological Monitor(s) shall perform all inspections of holes, trenches and other excavations, and covers and ramps required by this Condition. All steep-walled, uncovered holes, trenches and other excavations within the Project construction boundary shall be inspected at the beginning of the day, middle of the day, and end of the day for trapped animals. All covered holes, trenches and other excavations shall be inspected at least once daily for entrapped animals and for integrity of the covers. Before any holes, trenches or other excavations are filled, they shall be thoroughly inspected for trapped animals by a Designated Biologist or Biological Monitor.
- 9.18.3. Entrapped Animals. If any person discovers that a Covered Species has become trapped in an excavation, Permittee shall cease all Covered Activities in the vicinity and notify the Designated Biologist(s) immediately. Project workers and the Designated Biologist(s) shall allow Covered Species to escape unimpeded if possible before Covered Activities are allowed to continue, or the

Designated Biologist(s) shall capture and relocate the Covered Species. If at any time a trapped or injured Covered Species is discovered, the USFWS and CDFW shall be notified within one working day of the incident.

- 9.19. Pre-Construction Surveys for Mammalian Covered Species. The Designated Biologist(s) shall perform a pre-construction survey for mammalian Covered Species (e.g. SJKF, GKR, and SJAS) no more than 30 days prior to ground- or vegetation-disturbing activities for each construction phase and maintenance activity that results in ground or vegetation disturbance. Surveys shall cover the disturbance area and a 500-foot buffer for Covered Species dens. For planned and unplanned maintenance activities, which result in ground or vegetation disturbance, surveys for Covered Species dens shall cover the disturbance area and (a) a 500-foot buffer during pupping season (February through May) or (b) a 50-foot buffer during all other months. A report documenting the results of the pre-construction surveys shall be submitted to CDFW within 30 days after performing any such survey. Pre-construction surveys may not be possible for forced outages and other unanticipated emergencies (defined by potential for harm to persons, property or the environment) requiring immediate attention. The Designated Biologist(s) shall be notified of forced outage activities that result in ground or vegetation disturbance as soon as is practicable and shall survey for Covered Species dens or burrows, which surveys shall cover the disturbance area and (a) a 500-foot buffer during pupping season (February through May) or (b) a 50-foot buffer during all other months, as soon as is practicable after being notified of forced outages and other unanticipated emergencies. CDFW shall be notified as soon as practicable, and no later than 24-hours, after commencement of any ground- or vegetation-disturbing forced outage activities initiated prior to a preconstruction survey.

SJKF Specific Measures

- 9.20. SJKF Tracking During Construction. To track SJKF on the Project Footprint so they can be avoided, Permittee shall trap and collar all SJKF on the Project Footprint and fit them with radio or GPS collars prior to initiating any ground-disturbing activities. The Designated Biologists shall continually monitor collared SJKF for the duration of the Project's construction phase. All adult SJKF using the Project Footprint shall be collared. An individual who has demonstrated trapping experience while holding a memorandum of understanding pursuant to Fish and Game Code Section 2081(a) that permits SJKF trapping shall complete all trapping and coordinate all tracking. Permittee shall submit the trapper's name and qualifications to CDFW for approval a minimum of 5 business days prior to commencing with Covered Activities.
- 9.21. SJKF Den Avoidance During Construction and O&M Activities. Permittee shall leave SJKF dens intact and accessible to foxes to the maximum extent practicable. Permittee shall avoid destroying SJKF dens unless they are in an area of direct and

permanent ground alteration (e.g. grading area, building footprint) or their location poses a risk of direct harm to the species. If dens are in a solar array footprint that would not be graded, or in an area of temporary disturbance, the den will remain intact and the Designated Biologist(s) shall install a one-way door to prevent SJKF from utilizing the den during construction activities and remove the one-way door after construction activities. Permittee shall not destroy or modify dens, or exclude foxes from dens that are beyond the direct footprint of ground disturbance to preempt their use and den buffer establishment.

To avoid SJKF dens during ground- or vegetation-disturbing Covered Activities, Permittee shall implement the following den buffer requirements:

- 9.21.1. During the construction phase. If a potential SJKF den (one that shows evidence of current use or was used in the past) is discovered or a SJKF is found in an "atypical" den (e.g., a stockpile of Project materials), a 50-foot buffer shall be established using flagging. If a known SJKF den is discovered, a buffer of at least 100 feet shall be established using fencing. If a natal den (den in which SJKF young are reared) is discovered, a buffer of at least 200 feet shall be established using fencing. Natal dens with pups shall be avoided by at least 500 feet. Buffer zones shall have restricted entry. Limited activities may be allowed within established buffers under the supervision of a Designated Biologist and with CDFW concurrence. Permittee shall notify the USFWS and CDFW's Regional Representative immediately by telephone or e-mail if any SJKF dens, natal dens or atypical dens are discovered.
- 9.21.2. During Ground- or Vegetation-Disturbing O&M Activities. If a potential SJKF den (one that shows evidence of current use or was used in the past) is discovered or a SJKF is found in an "atypical" den (e.g., a pipe or culvert) during ground- or vegetation-disturbing O&M activities, a 30-foot buffer shall be established using permeable and highly visible fencing, rope, flagging, or tape. If a known SJKF den is discovered during ground- or vegetation-disturbing O&M activities and it is inactive, a buffer of at least 30 feet shall be established using permeable and highly visible fencing, rope, flagging, or tape. If a known SJKF den is discovered during ground- or vegetation-disturbing O&M activities and it is active, a buffer of at least 50 feet shall be established using permeable and highly visible fencing, rope, flagging, or tape. If a natal den (den in which SJKF young are reared) is discovered during ground- or vegetation-disturbing O&M activities, a buffer of at least 50 feet shall be established using rope or tape. Natal dens with pups shall be avoided by at least 500 feet during ground- or vegetation-disturbing O&M activities. Buffer zones shall have restricted entry during ground- or vegetation-disturbing O&M activities. Limited activities may be allowed within established buffers during ground- or vegetation-disturbing O&M activities under the supervision of a Designated Biologist and with CDFW concurrence. Permittee

shall notify the USFWS and CDFW's Regional Representative immediately via telephone or email if any SJKF dens, natal dens, or atypical dens are discovered that could be affected by ground- or vegetation-disturbing O&M activities.

- 9.22. SJKF Den Excavation During Construction and O&M Activities. For active dens, dens known to be active, and potential dens that exhibit signs of SJKF use or characteristics suggestive of SJKF dens (including dens in natural substrate and in/under man-made structures) within the portion of the Project Footprint to be disturbed and that cannot be avoided either during construction or during planned or unplanned maintenance activities as per Condition of Approval 9.21, if, after four consecutive nights of monitoring with tracking medium and infrared camera the Designated Biologist(s) has determined that SJKF is not currently present, the den may be destroyed. Any hole 4 inches or larger and exhibiting no signs of SJKF use or characteristics suggesting it is a SJKF den may be excavated under the supervision of the Designated Biologist(s) without advance tracking and camera monitoring. Natal dens shall not be excavated until the pups and adults have vacated and then only after consultation with the USFWS and CDFW. If the excavation process reveals evidence of current use by SJKF then den destruction shall cease immediately and tracking or camera monitoring as described above shall be conducted/resumed. Destruction of the den may be completed when, in the judgment of the Designated Biologist(s), the animal has escaped from the partially destroyed den. Destruction of all types of SJKF dens shall be accomplished by careful excavation until it is certain no SJKF are inside. Dens to be destroyed shall be fully excavated, filled with dirt and compacted to ensure that SJKF cannot reenter or use the den during the construction period or during planned or unplanned O&M activities. If a SJKF does not vacate a den within an area to be disturbed and that cannot be avoided as per Condition of Approval 9.21 within a reasonable timeframe, CDFW and the USFWS shall be contacted and Permittee shall obtain written guidance (email will suffice) from both agencies prior to proceeding with den destruction.

GKR Specific Measures

- 9.23. GKR Avoidance and Translocation. GKR precincts shall be avoided to the maximum extent practicable. If earthwork (e.g., clearing, grubbing, blading, scraping, excavating, filling, solar panel array construction) must occur within GKR precincts, any precincts shall be live trapped and excavated by the Designated Biologist prior to the initiation of ground-disturbing construction activities to minimize direct mortality. GKR shall be trapped and relocated to a CDFW-approved release site identified in a GKR translocation plan.

- 9.23.1. GKR Precincts on Off-Road Access Routes. All cross-country routes shall avoid GKR precincts to the maximum extent practicable. Where GKR precincts cannot be avoided by vehicles, Permittee shall temporarily place

minimum 4- by 8-foot, 1-inch plywood sheets or stronger material upon which the vehicles' tires shall traverse the precincts to prevent burrow collapse. Seed caches or haystacks shall be avoided by vehicles.

9.23.2. GKR Translocation Plan. Permittee shall submit a GKR translocation plan to CDFW prior to initiating ground-disturbing activities. Translocation activities shall not proceed until the GKR salvage plan has been approved in writing by CDFW's Regional Representative. Once the GKR translocation plan is approved by CDFW, it may be used for all GKR translocation activities for the duration of the ITP. Any proposed changes to the GKR translocation plan shall be submitted in writing to CDFW and approved by CDFW in writing prior to implementation of any proposed GKR translocation plan modifications. The GKR translocation plan will identify the trapping methods, receiver sites for each GKR source area, and receiver site preparation methods, including cage and artificial burrow construction details.

9.23.3. GKR Receiver Site Selection. GKR will be translocated to the nearest available receiver site that meets the following criteria. Permittee shall select receiver sites that by all measures would maximize the potential to accelerate recolonization of areas within the Habitat Management Lands conserved per Condition of Approval 10. Receiver sites will have been farmed historically and reverted to grassland. Receiver Sites will be devoid of existing sign of GKR (e.g. no scat or "inactive" precincts) but will be demonstrated to have suitable substrate, landscape position (not susceptible to flooding), and vegetation to support GKR.

9.23.4. GKR Survey and Trapping. Prior to any ground disturbance in each discrete work area within the Project, the Designated Biologist(s) shall survey the area to be disturbed and a 50-ft buffer and identify all potential GKR burrows within the area and buffer. All burrows with diagnostic GKR characteristics or that are otherwise suspected to be GKR burrows will be flagged. All of the potential precincts within 50 feet of ground-disturbing activities, whether they appear active or inactive, will then be surrounded by exclusionary fence and trapped by the Designated Biologist(s) for six consecutive nights prior to ground-disturbing activities. All captured GKR shall be relocated as per the GKR translocation plan required in ITP Condition of Approval 9.23.2. Following trapping and relocation, the precincts will be immediately excavated under a Designated Biologist's direct supervision and with a Designated Biologist present at all times at the excavation to relocate any Covered Species encountered as per the GKR translocation plan required in ITP Condition of Approval 9.23.2. Haystacks, seed caches, and seed stores found with live-trapped GKR, or in excavated burrows, shall be relocated with the associated individual GKR, and shall be placed within the release cages or artificial burrows.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

9.23.5. GKR Release Parameters. "Soft-release" methods in cages with artificially constructed burrows shall be used at receiver sites. GKR shall be placed at receiver sites in clusters of at least 30 animals. GKR neighbor relationships (location and distance of individual burrows relative to one another) shall be maintained within groups of translocated GKR. If isolated GKR are translocated, their release sites shall be on the periphery of any neighbor groups that are translocated.

9.23.6. GKR Dependent Juveniles and Pregnant or Lactating Females. Permittee shall ensure that no pregnant or nursing female or dependent juvenile GKR are disturbed during burrow excavation. Permittee shall not excavate precincts containing a pregnant lactating female or dependent juvenile. Permittee shall maintain a 250-foot buffer between precincts containing lactating females and or/dependent young and all ground- or vegetation-disturbing activities until lactation has ceased. The precinct may be monitored by a remote camera to observe activity. Because the occupied precinct would be enclosed with fencing that would potentially inhibit or preclude foraging, a sufficient amount of seed to sustain a nursing female must be placed at the precinct opening. If the designated biologist can determine with certainty which precinct the lactating female is occupying, adjacent precincts may be excavated only if impacts to the precinct(s) occupied by the lactating female(s) are avoided.

9.23.7. GKR January 1-August 31 Trapping Constraints. To reduce the amount of time a lactating/nursing female may be in a trap, all traps set from January 1 through August 31 for the capture and relocation of giant kangaroo rats must be set no more than 1 hour prior to sunset and closed no more than 1 hour after sunrise. All traps set during this period when females may be lactating/nursing must also be checked for occupancy every 2 hours between sunset and sunrise and any captured GKR released immediately at the trap location.

9.23.8. GKR Weather Constraints for Trapping. Consistent with established parameters set in protocols for other San Joaquin Valley kangaroo rats, during the threat of inclement weather, such as the National Weather Service prediction of a 40 percent or greater chance of rain, all traps for giant kangaroo rats will be closed. Should the air temperature exceed 105 degrees Fahrenheit, all traps will be closed. If the air temperature is predicted to drop below 50 degrees Fahrenheit, synthetic batting or other appropriate insulating material must be placed in each open trap. This material must be changed (replaced) each time a capture is made in a given trap.

9.23.9. GKR Translocation Performance Monitoring. Mark-recapture trapping sessions at all translocation sites shall occur to determine whether the

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

translocation succeeds in establishing new GKR colonies and whether the translocated individuals persist after translocation. Permittee shall monitor the performance of GKR translocations for a minimum of five years following translocation of the last individual moved during the construction phase. All translocated individuals shall be fitted with a passive integrated transponder (PIT) tag to enable documenting their survivorship. A minimum of 3 trapping sessions shall occur at each location in April and August in each of the minimum 5 years. Control sites shall be trapped in the same manner within the Panoche Valley. The performance monitoring shall measure abundance, apparent survival, reproduction by translocated individuals, and recruitment. Abundance and extent of GKR surface sign shall also be measured. If the results indicate that the translocation failed to establish self-sustaining colonies, then Permittee shall implement another five-year plan to accelerate GKR recolonization and abundance on HM lands. Permittee shall develop the performance monitoring plan with CDFW and shall obtain CDFW's written approval of the plan prior to disturbing ground.

- 9.24. Protection of GKR Food Caches. Where temporary, low-impact Covered Activities would occur and GKR burrow systems can be left in place while ensuring that the Covered Activities would directly take the GKR, any haystacks, seed caches, or other food stockpiled by GKR on the ground surface shall be left undisturbed to the greatest extent practicable. If avoidance of the food caches is not possible, the Designated Biologist shall implement measures to keep the food caches intact, including temporary relocation of the food (only in the daytime; seeds must be returned to original location for the night), cover the seeds with plywood to allow temporary vehicle or foot-traffic access, or implement other measures developed in consultation with CDFW.

SJAS Specific Measures

- 9.25. SJAS Translocation. A Designated Biologist shall trap and relocate SJAS to release sites, and following the methods, identified in a SJAS translocation plan prepared by Permittee and approved in writing by CDFW.
- 9.26. SJAS Burrow Avoidance and Excavation. Any burrows present within each discrete work area within the Project Area to be disturbed by earthwork, that are suspected or known to be occupied by SJAS, and that cannot be avoided by a 50-foot avoidance buffer, shall be live trapped during the day for 5 consecutive days by the Designated Biologist prior to the initiation of ground disturbing activities in each occupied discrete work area.

Following live-trapping activities, any known or suspected SJAS burrows present within areas to be disturbed by earthwork (e.g., clearing, grubbing, blading, scraping,

Incidental Take Permit
No. 2081-2014-035-04
PANOCHÉ VALLEY SOLAR, LLC
PANOCHÉ VALLEY SOLAR PROJECT

excavating, filling) shall be fully excavated by hand by the Designated Biologist during daylight hours to allow any remaining SJAS an opportunity to escape or be captured by hand as necessary (this Condition of Approval does not apply to SJAS burrows that will be disturbed only by foot traffic or single vehicle trips). Any SJAS encountered in excavated burrows during their active period shall be allowed to escape to the adjacent natural habitat or if captured shall be relocated as described in the translocation plan required in Conditions of Approval 9.25 and 8.10.

CTS Specific Measures

- 9.27. Barriers to CTS Movement. Roadways shall be constructed without steep curbs, berms, or dikes which prevent CTS from exiting the roadway. If curbs are necessary for safety and/or surface runoff, Permittee shall design and construct them as rounded or gently sloping structures so as to allow CTS to walk over them. If steep dikes are required, their design shall include over-side drains or curb/dike breaks spaces at 25-foot intervals to allow CTS passage.
- 9.28. CTS and Rain Forecast. The Designated Biologist(s) and Permittee shall monitor the National Weather Service 72-hour forecast for the Project Footprint. If a 70 percent or greater chance of rainfall is predicted within 24 hours, Permittee shall cease all construction phase Covered Activities until a zero percent chance of rain is forecast. Work may resume 24 hours after the rain ceases and there is a zero percent chance of precipitation in the 24-hour forecast. If work must continue when rain is forecast, the Designated Biologist(s) shall survey all work areas and travel routes (including existing and Project roads within 1.2 miles of known or potential CTS breeding habitat) immediately before each ground-disturbing activity to capture and relocate any Covered Species that are discovered during the surveys.
- 9.29. CTS and Rainfall or High Humidity Events. Permittee shall cease all construction phase Covered Activities within 1.2 miles of known or potential CTS breeding habitat when any precipitation falls or relative humidity exceeds 75% (high humidity). Covered Activities may resume 24 hours after the rain ceases and/or humidity drops below 75% and there is a zero percent chance of precipitation in the 24-hour forecast. Any vehicles inadvertently trapped by rain or high humidity at the Project Area and that need to be moved during or within 24 hours after rain or high humidity, including workers' commute vehicles on Little Panoche Road and Panoche Valley Road within the Panoche Valley or Panoche Hills, shall be immediately preceded by a Designated Biologist who will relocate any CTS out of the vehicle's path.
- 9.30. CTS: Excavation of Small Mammal Burrows. In each area where ground will be excavated, trenched, graded, capped, or bladed; where spoils would be placed for any amount of time; or where other materials will be stockpiled for greater than 24

hours, all small mammal burrows within 0.25-mile of known or potential CTS breeding habitat, and which cannot be fully avoided, shall be fully excavated under the direct supervision of the Designated Biologist. This does not include the portions of solar panel arrays where earthwork would not occur and original ground and vegetation would be left in place. The Designated Biologist(s) shall immediately capture any CTS encountered under relocated materials and immediately transport them in a plastic bucket containing a moistened, non-cellulose sponge or other nontoxic absorbent material to small mammal burrows as nearby as possible. The relocation sites will be beyond the limits of disturbance, and no further from known breeding locations than where the CTS were found.

- 9.31. CTS Salvage when Stockpile Materials are Moved. Dispersing juvenile CTS could take refuge under stockpiled materials or stormwater materials, such as pallets and silt fence, and then become crushed or desiccated when the materials are relocated. Permittee shall ensure that a Designated Biologist is present to capture and relocate any such CTS that may be found when stockpiled materials or stormwater materials are relocated. The Designated Biologist(s) shall immediately capture any CTS encountered under relocated materials and immediately transport them in a plastic bucket containing a moistened, non-cellulose sponge or other nontoxic absorbent material to small mammal burrows as nearby as possible. The relocation sites will be beyond the limits of disturbance, and no further from known breeding locations than where the CTS were found.

- 9.32. CTS: Handling Guidelines and Cleaning Equipment. The Designated Biologist(s) shall follow the most recent version of the Declining Amphibian Task Force Fieldwork Code of Practice (<https://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf>) when handling CTS. The cleaning solution may be substituted with 0.5-1 cup bleach per gallon of water.

- 9.33. CTS Silt Fence Openings. Permittee shall maintain openings in all silt fences at minimum 66-ft intervals to allow CTS passage at all times.

10. Habitat Management Land Acquisition:

CDFW has determined that permanent protection and perpetual management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result with implementation of the Covered Activities. This determination is based on factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation.

To meet this requirement, Permittee shall acquire and provide for both the permanent protection and management of a minimum of 25,618 or 26,118 acres of Habitat

Incidental Take Permit
No. 2081-2014-036-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

Management (HM) lands consisting of:

- o Silver Creek Ranch HM Lands (10,890 acres), located southeast of the Project Footprint (See Figure 1);
- o Valadeao Ranch HM Lands (10,772 acres), contiguous to and located west, north, and east of the Project Footprint (See Figure 1);
- o Valley Floor HM Lands (2,514 acres), contiguous to the Project Footprint (See Figure 1);
- o On-Site HM Lands (442 acres), located within the Project Footprint (See Figure 1); and
- o Panoche Valley HM Lands (1000 acres), to be located within the Panoche Valley and to be approved in advance in writing by CDFW. As an alternative to the purchase and permanent protection and management of the 1000 acres of Valley HM Lands, Permittee may elect to purchase one or more conservation easements over 1500 acres of HM Lands in the Panoche Valley to be approved in advance in writing by CDFW. Regardless of whether Permittee acquires and conserves 1000 acres or conserves 1500 acres, all Panoche Valley HM Lands shall provide high-quality, in-kind habitat for GKR.

The Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, On-Site HM Lands, and Panoche Valley HM Lands are collectively referred to herein as "Project HM Lands."

Permanent protection and funding for perpetual management of the Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, and On-Site HM Lands must be complete before starting Covered Activities. To satisfy this condition, Permittee must obtain written approval from CDFW for both the form of the conservation easement and the title review and record CDFW-approved conservation easements on all 24,618 acres of such HM Lands and secure or deposit the costs for the long-term management endowment, initial and capital costs, and interim costs (first 3 years of management) for all such HM Lands prior to engaging in any Covered Activities.

Permanent protection and funding for perpetual management of the Panoche Valley HM Lands must be complete within 6 months of the effective date of this ITP and Security must be provided pursuant to Condition of Approval 11 below. In the event Permittee is unable to satisfy this requirement with respect to the Panoche Valley HM Lands within 6 months, CDFW may, in its sole discretion, extend this period by up to 3 months if: 1) it finds Permittee has been working in good faith to satisfy this condition and has made substantial progress toward its completion; and 2) there is sufficient security in place for the extended timeframe.

Subsurface Mineral Rights

Except as expressly provided below, prior to starting Covered Activities Permittee shall acquire a minimum of 75% of the non-federal mineral rights for each parcel within the Project HM Lands. Notwithstanding the foregoing:

- For the following parcels, Permittee shall obtain the minimum percentage of mineral rights indicated below:
 - APNs 026-310-005, 026-310-006, and 027-360-006: 0% for a portion of each parcel.
 - APN 027-360-011: 63.9% for a portion of the parcel and 0% for the remainder.
 - APN 027-330-020: 0%.
 - APN 027-350-008: 22.5%.
 - APN 027-350-010: 45%.
 - APN 027-360-002: 63.9%.
- For the following parcels, Permittee shall obtain and record a binding waiver of surface rights:
 - APN 027-260-003.
 - APN 027-260-011.
 - APN 027-270-008.
 - APN 027-290-001.

With respect to any Severed Mineral Rights which are held and managed by the U.S. Department of the Interior, Bureau of Land Management ("BLM") ("BLM Severed Mineral Rights"), Permittee shall use all reasonable efforts to obtain from BLM a permanent conveyance of all such BLM Severed Mineral Rights pursuant to the Federal Land Policy and Management Act of 1976, as amended (FLPMA) (Title 42 U.S.C., § 1719(b); Title 43 C.F.R., Part 2720), or any other applicable federal law or regulation. Within 30 days of the effective date of this ITP, Permittee shall file with BLM any and all applications, requests, or other documents necessary to initiate the conveyance process for all BLM Severed Mineral Rights on the Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, and On-Site HM Lands, and Permittee shall diligently and in good faith pursue and prosecute the conveyance(s) until Permittee receives a final decision from BLM. Within 30 days of recordation of the conservation easement(s) for the Panoche Valley HM Lands, Permittee shall file with BLM any and all applications, requests, or other documents necessary to initiate the conveyance process for all BLM Severed Mineral Rights, if any, on the Panoche Valley HM Lands, and Permittee shall diligently and in good faith pursue and prosecute the conveyance(s) until Permittee receives a final decision from BLM.

With respect to the conveyances both for the Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, and On-Site HM Lands and for the Panoche

Valley HM Lands, Permittee shall use all reasonable efforts to have BLM promptly segregate all of the BLM Severed Mineral Rights from settlement, sale, location, or entry for the maximum allowable time period pursuant to Section 209(b) of FLPMA (43 U.S.C. Section 1719) and the implementing regulations at 43 C.F.R. Part 2720, and to renew such segregation upon its expiration, as applicable.

Permittee shall provide security in the amount of four million, eight hundred seventy-one thousand, eight hundred thirty-two dollars (**\$4,871,832.00**) with respect to its obligation to seek conveyances of the BLM Severed Mineral Rights. The security shall allow CDFW to draw on the principal sum if the BLM determines not to convey the BLM Severed Mineral Rights to the surface owner pursuant to the application(s) filed pursuant to this Condition of Approval. The security shall be released to Permittee if and to the extent the BLM conveys the BLM Severed Mineral Rights to Permittee.

With respect to all surface and subsurface mineral rights held by Permittee or hereafter obtained by Permittee, through the BLM conveyance process or otherwise, the conservation easements recorded on the Project HM Lands shall prohibit any and all: (a) excavating, dredging, mining, drilling, removing, exploring for, or extracting minerals, loam, soil, sands, gravel, rock, or other material on or below the surface of the Project HM Lands without the written consent of CDFW; and (b) transferring, encumbering, selling, leasing, or other separation of the mineral rights without the written consent of CDFW.

10.1. Project HM Lands Cost Estimates. CDFW has estimated the cost of acquisition and protection of the HM lands as follows:

10.1.1. Land acquisition costs for Panoche Valley HM lands identified in Condition of Approval 10.3 below, estimated at \$2,200.00/acre for 1500 acres: **\$3,300,000.00**. Land acquisition costs are estimated using local fair market current value for lands with habitat values meeting mitigation requirements;

10.1.2. Start-up costs for the Project HM lands, including initial site protection and enhancement costs as described in Condition of Approval 10.2.5 below, estimated at **\$8,198,056.00**;

10.1.3. Interim management period funding for the Project HM lands as described in Condition of Approval 10.2.6 below, estimated at **\$2,241,253.00**;

10.1.4. Long-term management funding for the Project HM lands as described in Condition of Approval 10.3 below, estimated at **\$915.70/acre** for 26,118 acres: **\$23,916,349.00**. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management.

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

10.1.5. Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, estimated at **\$15,000.00**.

10.2. Habitat Acquisition and Protection. To provide for the acquisition and perpetual protection and management of the Project HM Lands, Permittee shall:

10.2.1. Fee Title/Conservation Easement.

10.2.1.1. Within 150 days of the effective date of this ITP, transfer fee title to the Project HM lands to a CDFW-approved governmental entity, special district, non-profit organization, for-profit entity, person, or another entity authorized to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended. If the Panoche Valley HM Lands have not been acquired and conserved by the end of the 150-day period, Permittee shall transfer fee title to the Panoche Valley HM Lands pursuant to this section within 30 days of its acquisition of those lands.

10.2.1.2. CDFW shall approve a non-profit entity, public agency, or Native American tribe to act as grantee for the conservation easements over the Project HM Lands, provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3 and Government Code section 65967(a), during the initial 150 days of the ITP term during which Permittee shall continue to hold fee title to the Project HM Lands. As needed, CDFW shall approve a substitute non-profit entity, public agency, or Native American tribe to act as grantee for the conservation easements over the Project HM Lands, provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3 and Government Code section 65967(a), once fee title is transferred pursuant to Condition of Approval 10.2.1.1.

10.2.1.3. CDFW shall be expressly named in all conservation easements on the Project HM Lands as a third-party beneficiary. Permittee shall obtain CDFW written approval of all conservation easements before their execution and recordation. No conservation easement shall be approved by CDFW unless it complies with Government Code sections 65965-65968, as amended, and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e);

- 10.2.2. Project HM Lands Approval. Obtain CDFW written approval of the Project HM lands before acquisition and/or transfer of the land by submitting, before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (see Attachment 2B) identifying the Project HM Lands to be purchased, conserved, and conveyed to an approved entity as mitigation for the Project's impacts on Covered Species;
- 10.2.3. Project HM Lands Documentation. Provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents (see Attachment 2A). All documents conveying the Project HM Lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services;
- 10.2.4. Land Manager. Designate both an interim and long-term land manager approved by CDFW. The interim and long-term land managers may, but need not, be the same. Documents related to land management shall identify both the interim and long-term land managers. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change.
- 10.2.5. Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of Project HM Lands, once the Project HM Lands have been approved by CDFW. Permittee must still obtain CDFW approval for the Valley HM Lands. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see <http://www.dfg.ca.gov/habcon/conplan/mitbank/>); (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, if applicable; and (7) installing signage;
- 10.2.6. Interim Management (Initial and Capital). Provide for the interim management of the Project HM Lands. Permittee shall ensure that the interim land manager implements the interim management of the Project HM Lands as described in the final management plan and conservation easement approved by CDFW. The interim management period shall be a minimum of three years from the date of Project HM Land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, grazing management, grazing infrastructure maintenance, CTS pond maintenance, road maintenance, and vegetation and invasive species management. Permittee shall

either (1) provide a security to CDFW for the minimum of three years of interim management that the land owner, Permittee, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by CDFW to pay the land manager annually in advance, or (3) establish a short-term enhancement account with CDFW or a CDFW-approved entity for payment to the land manager.

- 10.3. Endowment Fund. Permittee shall ensure that the Project HM Lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this ITP, the conservation easements, and the final management plan approved by CDFW. After obtaining CDFW approval of the Project HM Lands, Permittee shall provide long-term management funding for the perpetual management of the Project HM Lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that provides funds for the perpetual management, maintenance, monitoring, and other activities on the Project HM Lands consistent with the management plan(s) required by Condition of Approval 10.2.5. Endowment as used in this ITP shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the Project HM Lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the Project HM Lands in perpetuity to preserve their conservation values in accordance with this ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

- 10.3.1. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be an entity qualified pursuant to Government Code sections 65965-65968, as amended. Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e). Within thirty days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game

Code section 2081(b)(4) and, if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with Section 2081(b)(4).

10.3.2. Calculate the Endowment Funds Deposit. After obtaining CDFW written approval of the Project HM Lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) or PAR-equivalent analysis (hereinafter "PAR") to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). Permittee shall submit to CDFW for review and approval the results of the PAR before transferring funds to the Endowment Manager.

10.3.2.1. Capitalization Rate and Fees. Permittee shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the PAR and adjust for any additional administrative, periodic, or annual fees.

10.3.2.2. Endowment Buffers/Assumptions. Permittee shall include in PAR assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:

10.3.2.2.1. Ten-Percent Contingency. A 10% contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.

10.3.2.2.2. Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first 3 years after full funding.

10.3.2.2.3. Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW.

10.3.3. Transfer Long-term Endowment Funds. Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above and within 6 months of the effective date of this ITP, or within 9 months of the effective date of this ITP if CDFW extends the time period in which Permittee must permanently protect the Panoche Valley HM Lands. The Endowment Manager shall, at all times, hold and manage

the Endowment in compliance with this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

10.4. Habitat Restoration. Permittee shall restore on-site all Covered Species habitat that will be temporarily disturbed during construction to pre-Project or better conditions. Within six (6) months of issuance of this ITP, Permittee shall prepare a Vegetation Restoration Plan to facilitate revegetation of temporary construction disturbance on-site, and shall ensure that the Plan is successfully implemented by the contractor. The Plan shall include detailed specifications for restoring all temporarily disturbed areas, such as seed mixes and application methods. The plan shall also indicate the best time of year for seeding to occur. Success criteria will be to achieve equivalent grass and forb cover of similar composition to undisturbed reference areas in the Project Area or the Project HM lands.

10.5. Habitat Enhancement on Mitigation Lands. CDFW has determined that enhancement of Covered Species habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result from implementation of the Covered Activities.

Where both shrublands and grasslands are available, SJKF have been found to select shrublands for foraging and grasslands for denning. A mosaic of grasslands and shrublands has been found to provide a more diverse and robust prey base for SJKF, which can buffer against fluctuations in prey base and habitat functions due to stochastic events, and to allow spatial partitioning between SJKF and coyotes, which may reduce predation on SJKF.¹⁵ Shrub cover is also associated with persistent SJAS populations and is understood to be an important component of their habitat. Higher densities of SJAS are often observed in shrublands than grasslands.

In the management plans required by Condition of Approval 10.2.5 Permittee shall include a plan to enhance vegetation on Project HM Lands for Covered Species as described below. Permittee shall fund the vegetation enhancement on Project HM Lands as required by Condition of Approval 10.2 and 10.3.

10.5.1. The Project HM lands management plans shall provide for restoration of allscale (*Atriplex polycarpa*), California ephedra (*Ephedra californica*), and/or other perennial shrub species appropriate to the HM lands where the native shrub cover has been removed or adversely altered by livestock grazing, fire, farming, or other anthropogenic causes. Target shrub cover shall be achieved within 10 years of acquisition/recording of

¹⁵ Nelson, Julia L., B.L Cypher, C.D. Bjurlin, and S. Creel. 2007. Effects of habitat on competition between kit foxes and coyotes. J. Wildlife Management. 75(5):1467-1475.

conservation easements as required by Condition of Approval 10.2 and then maintained in perpetuity.

- 10.5.2. The Project HM lands management plans shall rely on reference sites to determine target shrub species and cover per species, and annual vegetation height, for optimum Covered Species management. If CDFW and Permittee agree that suitable reference sites are not available, then the following values shall be used:
 - 10.5.2.1. 15-20% shrub cover (90% confidence interval, statistical power of no less than 0.8) distributed in patches throughout the Project HM Lands, on 50% of Project HM lands where slopes are less than 6 degrees in patches of 100 acres or greater. No planted patch greater than 5 acres shall exceed 35% shrub cover. Any 5 acre patch exceeding 35% shrub cover shall not be counted toward the overall goal of 15-20% shrub cover over 50% of Project HM lands.
 - 10.5.2.2. An average height of annual vegetation (grasses and forbs) of less than 8 inches during the growing season (February 15 to April 30)
 - 10.5.2.3. Residual Dry Matter (RDM) measurement of 500 to 1,600 pounds per acre in normal and above-average rainfall years.
- 10.5.3. At a minimum, soil type, aspect, and precipitation level of Project HM lands shall be compared to reference sites to determine appropriate shrub species and locations for establishment on the Project HM lands.
- 10.5.4. Shrub cover shall be measured annually on the Project HM lands undergoing shrub restoration until the performance criteria are met and then no less than once every 5 years in perpetuity. If, after shrub cover criteria are initially met, a subsequent monitoring session determines that shrub cover criteria are no longer being met, then the HM lands management plans shall require the Project HM lands manager to consult with CDFW and the USFWS to determine measures required to remove excess/establish additional shrub cover and the management plans shall require the Project HM lands manager to implement those measures.

- 10.5.5. Shrub cover shall be monitored by current aerial photography/photogrammetric methods and transferred to a Geographical Information System for analysis. Other methods may be used if approved by CDFW in the Project HM lands management plans or requested by the HM lands manager and approved of in writing by CDFW.
- 10.5.6. Seeds for shrub establishment shall be obtained from local, naturally-occurring source populations in the Panoche Valley.
- 10.5.7. Vegetation target values shall be monitored and maintained on the Project HM lands in perpetuity. Any change in target vegetation composition, cover, or structure values after initial approval of the management plans shall be approved by CDFW in advance in writing. CDFW retains the right to change the target values at its sole discretion as appropriate for optimizing Covered Species management.
- 10.6. Monitoring Performance of Adjacent Project HM Lands for SJKF. To monitor the performance of the adjacent Project HM lands for SJKF, Permittee shall fund monitoring of SJKF movement on and use of the Project HM lands that adjoin the Project Footprint and ensure that the monitoring is completed. The monitoring program shall be developed in coordination with CDFW's Regional Representative and USFWS. The qualified biologist shall deploy GPS collars on SJKF for 3 years, starting at the end of the construction phase, to determine the following, at a minimum:
- Whether Covered Species avoid HM lands near the Project Footprint;
 - Whether Covered Species utilize HM lands near the Project Footprint proportionally to their availability;
 - What type of use is exhibited (e.g., denning or foraging);
 - Seasonal differences in use; and
 - Whether predation, reproduction, and recruitment of SJKF is different on Project HM lands near the Project Footprint than in intact habitat areas not near the Project Footprint.

A sufficient number of SJKF shall be tracked to allow for detection of significant differences, if present, between use and predation rates at Project HM lands near the Project Footprint and intact habitat areas greater than one mile (approximately one home range radius) from large-scale solar energy developments, other large-scale developments, or unsuitable habitat areas.

An individual who has demonstrated trapping experience while holding a memorandum of understanding pursuant to Fish and Game Code Section 2081(a) that permits SJKF trapping shall complete all trapping and shall coordinate all tracking and data analysis. Permittee shall submit the trapper's name and qualifications to CDFW for approval a minimum of 5 days prior to commencing with the monitoring study.

- 10.7. Within one year of ITP issuance, Permittee shall establish 3 CTS breeding ponds on Project HM lands within dispersal distance of existing CTS breeding ponds. Ponds shall be designed to naturally fill in winter storms and dry naturally in summer, with water through May in average precipitation years. Permittee shall obtain CDFW's written approval of the pond locations and construction plans and shall fund perpetual maintenance, repair, and modification as necessary to achieve optimal hydroperiod for CTS in the long-term endowment for HM lands.

11. Performance Security

Permittee may proceed with Covered Activities only after Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 10 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:

- 11.1. Security Amount. The Security shall be in the amount of **\$42,542,490.00**. This amount is based on the cost estimates identified in Condition of Approval 10.1 above.
- 11.2. Security Form. The Security shall be in the form of an irrevocable letter of credit (see Attachment 3) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel. With advance CDFW approval, the Security may be provided in more than one instrument.
- 11.3. Security Timeline. The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of this ITP, whichever occurs first.
- 11.4. Security Holder. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.
- 11.5. Security Transmittal. If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (see Attachment 4) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other.
- 11.6. Security Drawing. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that Permittee has failed to comply

with the Conditions of Approval of this ITP.

11.7. **Security Release.** The Security (or any portion of the Security then remaining) shall be released to Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:

- Written documentation of the acquisition of the HM lands;
- Copies of all executed and recorded conservation easements;
- Written confirmation from the approved Endowment Manager of its receipt of the full Endowment; and
- Timely submission of all required reports.

Even if Security is provided, Permittee must complete the required acquisition, protection and transfer of all Project HM lands and record any required conservation easements in accordance with the terms of this ITP. CDFW may require Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if Permittee does not complete these requirements within the specified timeframe.

Amendment:

This ITP may be amended as provided by California Code of Regulations, Title 14, section 783.6, subdivision (c), and other applicable law. This ITP may be amended without the concurrence of Permittee as required by law, including if CDFW determines that continued implementation of the Project as authorized under this ITP would jeopardize the continued existence of the Covered Species or where Project changes or changed biological conditions necessitate an ITP amendment to ensure that all Project-related impacts of the taking to the Covered Species are minimized and fully mitigated.

Stop-Work Order:

CDFW may issue Permittee a written stop-work order requiring Permittee to suspend any Covered Activity for an initial period of up to 25 days to prevent or remedy a violation of this ITP, including but not limited to the failure to comply with reporting or monitoring obligations, or to prevent the unauthorized take of any CESA endangered, threatened, or candidate species. Permittee shall stop work immediately as directed by CDFW upon receipt of any such stop-work order. Upon written notice to Permittee, CDFW may extend any stop-work order issued to Permittee for a period not to exceed 25 additional days. Suspension and revocation of this ITP shall be governed by California Code of Regulations, Title 14, section 783.7, and any other applicable law. Neither the Designated Biologist nor CDFW shall be liable for any costs incurred in complying with stop-work orders.

Compliance with Other Laws:

This ITP sets forth CDFW's requirements for Permittee to implement the Project pursuant to CESA. This ITP does not necessarily create an entitlement to proceed with the Project. Permittee is responsible for complying with all other applicable federal, state, and local law.

Notices:

Permittee shall deliver a fully executed duplicate original ITP by registered first class mail or overnight delivery to the following address:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
Attention: CESA Permitting Program
1416 Ninth Street, Suite 1266
Sacramento, CA 95814

Written notices, reports and other communications relating to this ITP shall be delivered to CDFW by registered first class mail at the following address, or at addresses CDFW may subsequently provide Permittee. Notices, reports, and other communications shall reference the Project name, Permittee, and ITP Number (2081-2014-035-04) in a cover letter and on any other associated documents.

Original cover with attachment(s) to:

Julie Vance, Regional Manager
California Department of Fish and Wildlife
1234 East Shaw Avenue
Fresno, CA 93710
(559) 243-4005 x151
Fax (559) 243-4022

and a copy to:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
Attention: CESA Permitting Program
1416 Ninth Street, Suite 1266
Sacramento, CA 95814

Incidental Take Permit
No. 2081-2014-035-04
PANOCHIE VALLEY SOLAR, LLC
PANOCHIE VALLEY SOLAR PROJECT

Unless Permittee is notified otherwise, CDFW's Regional Representative for purposes of addressing issues that arise during implementation of this ITP is:

Dave Hacker
3196 South Higuera St., Suite A
San Luis Obispo, CA 93401
(805) 594-6152
David.hacker@wildlife.ca.gov

Compliance with CEQA:

CDFW's issuance of this ITP is subject to CEQA. CDFW is a responsible agency pursuant to CEQA with respect to this ITP because of prior environmental review of the Project by the lead agency, the County of San Benito (See generally Pub. Resources Code, §§ 21067, 21069.) The lead agency's prior environmental review of the Project is set forth in the Environmental Impact Report (EIR) and Supplemental Environmental Impact Report (SEIR) (SCH No.: 2010031008) certified by the County of San Benito Board of Supervisors on November 10, 2010 and May 19, 2015, respectively. At the time the lead agency certified the EIR and SEIR and approved the Project it also adopted various mitigation measures for the Covered Species as conditions of Project approval.

This ITP, along with CDFW's related CEQA findings, which are available as a separate document, provide evidence of CDFW's consideration of the lead agency's EIR and SEIR for the Project and the environmental effects related to issuance of this ITP (CEQA Guidelines, § 15096, subd. (f)). CDFW finds that issuance of this ITP will not result in any previously undisclosed potentially significant effects on the environment or a substantial increase in the severity of any potentially significant environmental effects previously disclosed by the lead agency. Furthermore, to the extent the potential for such effects exists, CDFW finds adherence to and implementation of the Conditions of Project Approval adopted by the lead agency, and that adherence to and implementation of the Conditions of Approval imposed by CDFW through the issuance of this ITP, will avoid or reduce to below a level of significance any such potential effects. CDFW consequently finds that issuance of this ITP will not result in any significant, adverse impacts on the environment.

Findings Pursuant to CESA:

These findings are intended to document CDFW's compliance with the specific findings requirements set forth in CESA and related regulations. (Fish & G. Code § 2081, subs. (b)-(c); Cal. Code Regs., tit. 14, §§ 783.4, subds, (a)-(b), 783.5, subd. (c)(2).)

CDFW finds based on substantial evidence in the ITP application, the EIR, and SEIR, and the administrative record of proceedings, that issuance of this ITP complies and is consistent with the criteria governing the issuance of ITPs pursuant to CESA:

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

- (1) Take of Covered Species as defined in this ITP will be incidental to the otherwise lawful activities covered under this ITP;
- (2) Impacts of the taking on Covered Species will be minimized and fully mitigated through the implementation of measures required by this ITP and as described in the MMRP. Measures include: (1) permanent habitat protection; (2) establishment of avoidance zones; (3) worker education; (4) direct fatality minimization measures such as translocation; and (5) Monthly Compliance Reports. CDFW evaluated factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation. Based on this evaluation, CDFW determined that the protection and management in perpetuity of a minimum of 25,618 acres of mitigation lands, at least 7000 acres of which constitutes compensatory habitat that is contiguous with other protected Covered Species habitat and/or is of higher quality than the habitat being destroyed by the Project, along with the minimization, monitoring, reporting, and funding requirements of this ITP minimizes and fully mitigates the impacts of the taking caused by the Project.

In making this finding, CDFW considered the amount and quality of Covered Species Habitat impacted compared to the amount and quality of existing habitat that would be protected as a requirement of this ITP. The analysis used GKR as surrogate for SJAS and SJKF because it is the keystone species for their shared ecosystem. This analysis is in Attachment 5.

For CTS, CDFW determined that enough upland habitat would remain around the known breeding pools to support reduced yet persistent populations there, and that the reduced proportion of the population, represented by the amount of habitat impacted, and the on-going take from vehicle strikes during construction and O&M, would be offset by creating additional breeding sites. The existing CTS ponds are man-made stock ponds, which is why CDFW finds that it is reasonable to expect CTS to breed in additional man-made ponds in the same landscape if such ponds became available. An increase in the total area of breeding ponds would in turn result in an increase in the population to offset the Project's take and habitat impacts. This is supported by the fact that population size is positively correlated with pond area¹⁶. Creating more pond area and protecting the uplands around those ponds is expected to increase the number of individuals on lands that would be protected as a condition of this ITP.

- (3) The take avoidance and mitigation measures required pursuant to the conditions of this ITP and its attachments are roughly proportional in extent to the impacts of the

¹⁶ Wang, Ian J., J.R. Johnson, B.B. Johnson, and H.B. Shaffer. 2011. Effective population size is strongly correlated with breeding pond size in the endangered California tiger salamander, *Ambystoma californiense*. Conservation Genetics 12:911-920.

taking authorized by this ITP;

- (4) The measures required by this ITP maintain Permittee's objectives to the greatest extent possible;
- (5) All required measures are capable of successful implementation;
- (6) This ITP is consistent with any regulations adopted pursuant to Fish and Game Code sections 2112 and 2114;
- (7) Permittee has ensured adequate funding to implement the measures required by this ITP as well as for monitoring compliance with, and the effectiveness of, those measures for the Project; and
- (8) Issuance of this ITP will not jeopardize the continued existence of the Covered Species based on the best scientific and other information reasonably available, and this finding includes consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from other related projects and activities. Moreover, CDFW's finding is based, in part, on CDFW's express authority to amend the terms and conditions of this ITP without concurrence of Permittee as necessary to avoid jeopardy and as required by law.

Attachments:

FIGURE 1	Project and Conservation Lands Location
FIGURE 2	Project Layout
FIGURE 3	Telecommunication Upgrades
FIGURE 4	Temporary Impact Areas
FIGURE 5	Interconnection Facilities
FIGURE 6	AT&T Fiber Installation
FIGURE 7	Telecommunication Upgrades: OPGW
FIGURE 8	Stream Locations
ATTACHMENT 1	Mitigation Monitoring and Reporting Program
ATTACHMENT 2A	Habitat Management Lands Checklist
ATTACHMENT 2B	Proposed Lands for Acquisition Form
ATTACHMENT 3	Letter of Credit Form
ATTACHMENT 4	Mitigation Payment Transmittal Form
ATTACHMENT 5	Additional Findings Discussion: Analysis of GKR Mitigation Lands

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

ISSUED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

on November 20, 2015



Charlton H. Bonham, Director
CALIFORNIA DEPARTMENT OF FISH AND
WILDLIFE

ACKNOWLEDGMENT

The undersigned: (1) warrants that he or she is acting as a duly authorized representative of Permittee, (2) acknowledges receipt of this ITP, and (3) agrees on behalf of Permittee to comply with all terms and conditions

By: _____ Date: _____

Printed Name: _____ Title: _____

Incidental Take Permit
No. 2081-2014-035-04
PANOCH VALLEY SOLAR, LLC
PANOCH VALLEY SOLAR PROJECT

FIGURE 1

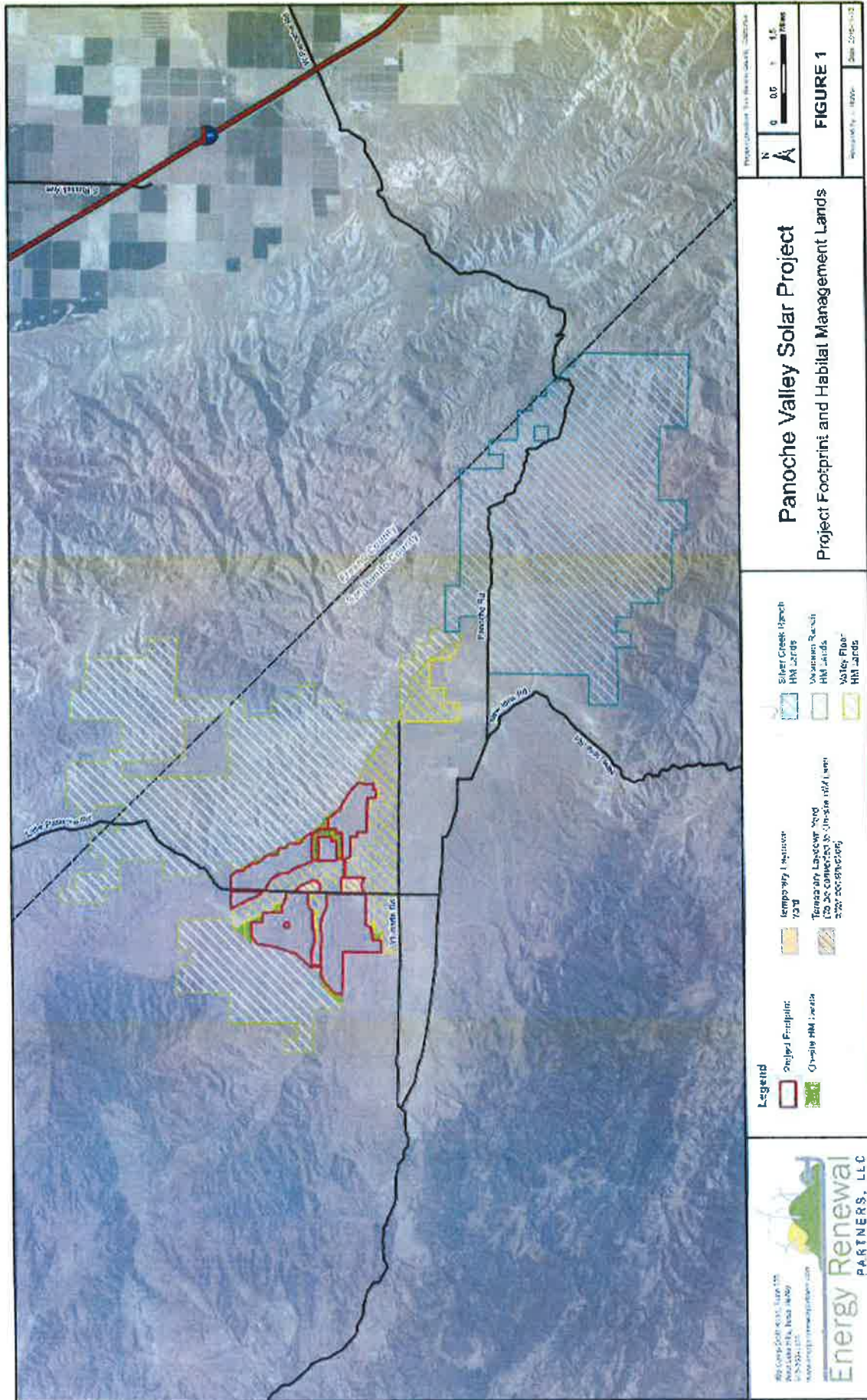


FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5

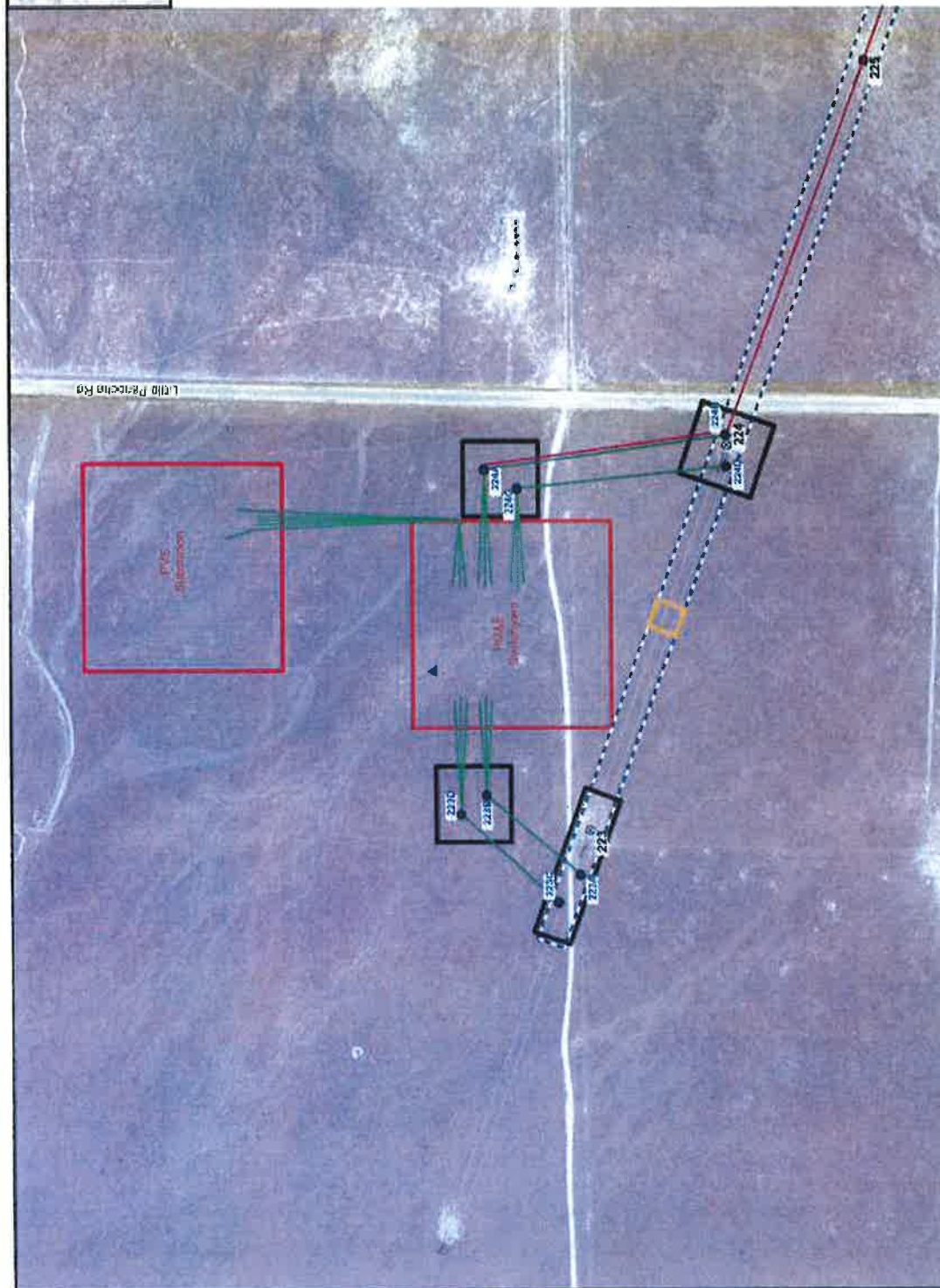


Figure 5
Interconnection Facilities

FIGURE 6

FIGURE 7

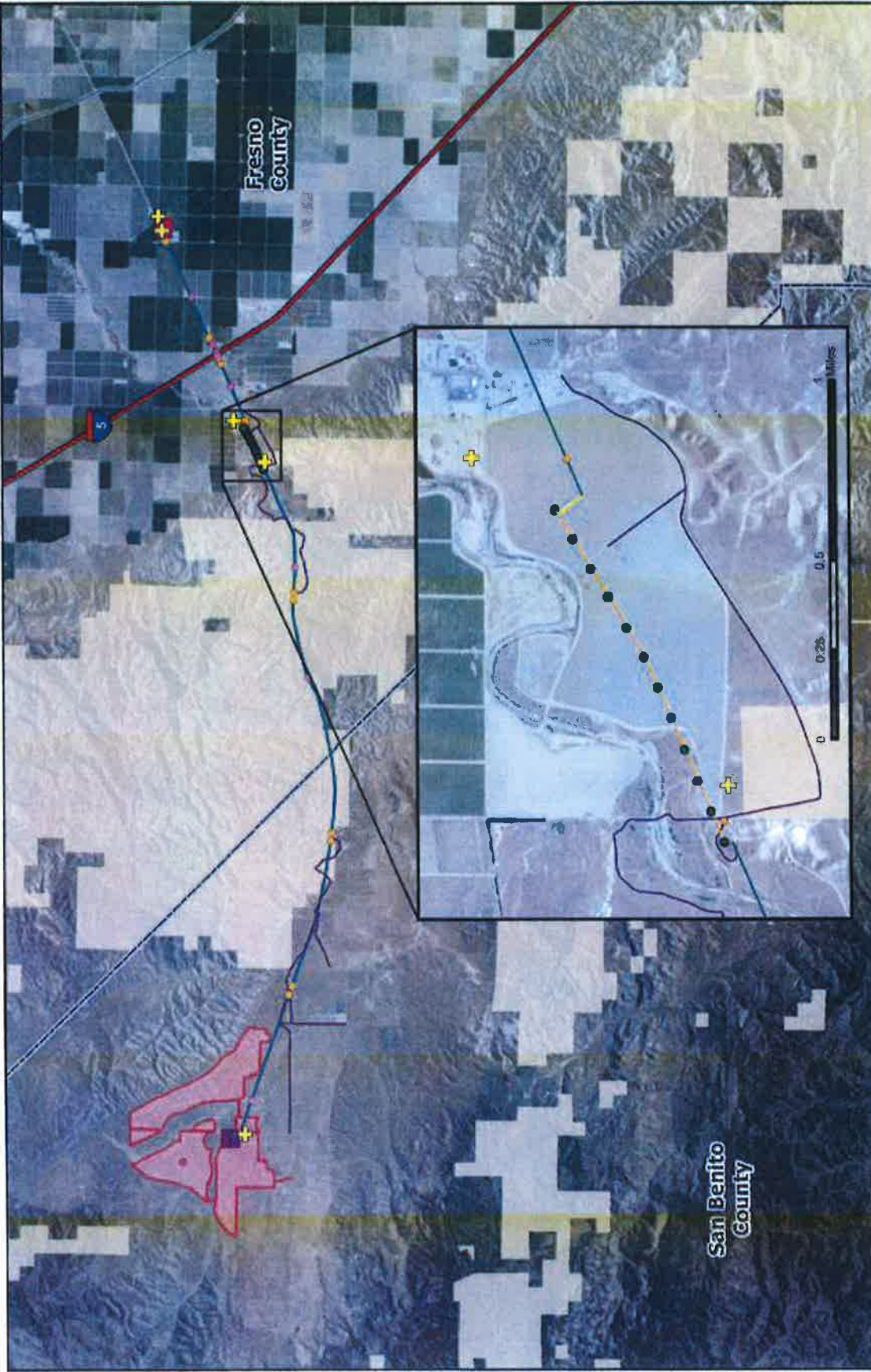


Figure 7
Telecommunication
Upgrades: OPGW



Aspen
 Environmental Group

0 2.5 5 Miles
 Source: FWS LLC, ES&E

FIGURE 8

ATTACHMENT 1

Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
CALIFORNIA ENDANGERED SPECIES ACT**

INCIDENTAL TAKE PERMIT NO. 2081-2014-035-04

PERMITTEE: Panoche Valley Solar, LLC

PROJECT: Panoche Valley Solar Project

PURPOSE OF THIS MMRP

The purpose of this MMRP is to ensure that the impact minimization and mitigation measures required by the Department of Fish and Wildlife (CDFW) for the above-referenced Project are properly implemented, and thereby to ensure compliance with section 2081(b) of the Fish and Game Code and section 21081.6 of the Public Resources Code. A table summarizing the mitigation measures required by CDFW is attached. This table is a tool for use in monitoring and reporting on implementation of mitigation measures, but the descriptions in the table do not supersede the mitigation measures set forth in the California Incidental Take Permit (ITP) and in attachments to the ITP, and the omission of a permit requirement from the attached table does not relieve the Permittee of the obligation to ensure the requirement is performed.

OBLIGATIONS OF PERMITTEE

Mitigation measures must be implemented within the time periods indicated in the table that appears below. Permittee has the primary responsibility for monitoring compliance with all mitigation measures and for reporting to CDFW on the progress in implementing those measures. These monitoring and reporting requirements are set forth in the ITP itself and are summarized at the front of the attached table.

VERIFICATION OF COMPLIANCE, EFFECTIVENESS

CDFW may, at its sole discretion, verify compliance with any mitigation measure or independently assess the effectiveness of any mitigation measure.

TABLE OF MITIGATION MEASURES

The following items are identified for each mitigation measure: Mitigation Measure, Source, Implementation Schedule, Responsible Party, and Status/Date/Initials. The Mitigation Measure column summarizes the mitigation requirements of the ITP. The Source column identifies the ITP condition that sets forth the mitigation measure. The Implementation Schedule column shows the date or phase when each mitigation measure will be implemented. The Responsible Party column identifies the person or agency that is primarily responsible for implementing the mitigation measure. The Status/Date/Initials column shall be completed by the Permittee during preparation of each Status Report and the Final Mitigation Report, and must identify the implementation status of each mitigation measure, the date that status was determined, and the initials of the person determining the status.

Mitigation Measure		Source	Implementation Schedule	Responsible Party	Status / Date / Initials
BEFORE DISTURBING SOIL OR VEGETATION					
1	Legal Compliance: Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of the ITP or adopted thereafter.	ITP Condition # 1	Before commencing ground- or vegetation-disturbing activities/Entire Project	Permittee	
2	CEQA Compliance: Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Biological Resources section of the Environmental Impact Report and Supplemental Environmental Impact Report (SCH No.: 2010031008) certified by the County of San Benito on November 10, 2010 and May 19, 2015, respectively, as lead agency for the Project pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).	ITP Condition # 2	ground- or vegetation-disturbing activities /Entire Project	Permittee	
3	LSA Agreement Compliance: Permittee shall implement and adhere to the mitigation measures and conditions related to the Covered Species in any Lake and Streambed Alteration Agreement (LSAA) issued in response to Notification No. 1800-2014-0042-R4, or any subsequent notification submitted for the Project pursuant to Fish and Game Code section 1800 et seq.	ITP Condition # 3	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
4	ESA Compliance: Permittee shall implement and adhere to the terms and conditions related to the Covered Species in the Biological Opinion for the Panoche Valley Solar Farm, San Benito County, California (File Number 2009-00443S), issued pursuant to the Federal Endangered Species Act (ESA), as those terms and conditions become binding conditions of the Section 404 permit to be issued by the U.S. Army Corps of Engineers pursuant to the Clean Water Act. For purposes of the ITP, where the terms and conditions for the Covered Species in the federal authorization are less protective of the Covered Species or otherwise conflict with the ITP, the conditions of approval set forth in the ITP shall control.	ITP Condition # 4	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
5	Fully Protected Species Compliance: Permittee shall adhere strictly to the prohibition in Fish and Game Code Section 5050 against the taking or possessing of any fully protected reptile or amphibian. In performing the Covered Activities under the ITP, Permittee shall not take or possess the fully protected blunt-nosed leopard lizard (<i>Crotaphytus wislizeni silus</i> = <i>Gambella silus</i>) in any manner at any time. Any take or possession of blunt-nosed leopard lizard by Permittee or its contractors or agents may result in a stop-work order and suspension and/or revocation of the ITP in addition to any criminal and/or civil prosecution under Fish and Game Code Section 5050, Fish and Game Code Section 2014, or any other provision of law.	ITP Condition # 5	Before commencing ground- or vegetation-disturbing activities/Entire Project	Permittee	
6	ITP Time Frame Compliance: Permittee shall fully implement and adhere to the conditions of the ITP within the time frames set forth below and as set forth in this Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment 1 to the ITP.	ITP Condition # 6	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
7	Designated Representative. Before starting Covered Activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with the ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of the ITP.	ITP Condition # 7.1	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
8	Designated Biologists. Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of Designated Biologists at least 5 business days before starting Covered Activities. Permittee shall ensure that the Designated Biologists are knowledgeable and experienced in the biology, natural history, collecting, and handling of the Covered Species. Permittee shall ensure that the Designated Biologists are experienced in excavating burrows to minimize mortality of CTS, GKR, and SJKF; trapping SJAS and GKR, and monitoring construction activities under an ITP for CTS, and on large-scale (>840 acres), multi-year construction projects for SJAS, GKR, and SJKF. The Designated Biologists shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat. Permittee shall obtain CDFW approval of the Designated Biologists in writing before starting Covered Activities, and shall also obtain approval in advance in writing if a Designated Biologist must be changed at any time during the term of the ITP.	ITP Condition # 7.2	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
9	Education Program. Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Designated Biologists that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in the ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least every six months during the construction phase and then annually during O&M for long-term and/or permanent employees that will be conducting work in the Project Area.	ITP Condition # 7.5	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
10	Trash Abatement. Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in closed (animal proof) containers and removed regularly to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs. The permanent trash receptacle(s) on the site will be enclosed in a wildlife safe fenced enclosure and Permittee shall ensure the containers are closed and in good working order.	ITP Condition #7.7	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
11	Delineation of Property Boundaries. Before starting Covered Activities along each part of the route in active construction phase or ground-disturbing O&M activities, Permittee shall clearly delineate the boundaries of the Project Area with wildlife-permeable fencing, stakes, or flags. Permittee shall restrict all construction phase or ground-disturbing O&M Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of construction phase or ground-disturbing O&M Covered Activities in that area.	ITP Condition #7.11	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
12	Notification Before Commencement. The Designated Representative shall notify CDFW in writing 5 business days before starting Covered Activities and shall document in the notification compliance with all pre-Project Conditions of Approval before starting Covered Activities. Upon receipt of the notification, if CDFW determines that all pre-Project Conditions of Approval are complete, CDFW may, in its discretion, authorize Covered Activities to start sooner than 5 business days after its receipt of the notification.	ITP Condition #8.1	Before commencing ground- or vegetation-disturbing activities.	Permittee	
13	Notification of Non-compliance. The Designated Representative shall immediately notify CDFW in writing if it determines that Permittee is not in compliance with any Condition of Approval of the ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in the ITP and/or this MMRP. The Designated Representative shall report any non-compliance with the ITP to CDFW in writing within 24 hours.	ITP Condition #8.2	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	
14	SJAS and GKR Translocation Plans. Permittee shall prepare and implement (after CDFW's written approval of the plans) plans to trap and relocate GKR and SJAS from work areas as described in Conditions of Approval 9.23 and 9.25.	ITP Condition #8.10	Before commencing ground- or vegetation-disturbing activities.	Permittee	
15	Buried Electrical Cables. Permittee shall ensure that the design and installation methods of any buried electrical lines preclude Covered Species electrocution. Permittee shall either install underground lines in conduit or use direct-bury cable of a design that precludes breaching by and electrocution of small mammals. Permittee shall obtain CDFW's written concurrence on each type of underground cable's specifications prior to its installation at the Project Footprint.	ITP Condition #9.14	Before commencing ground- or vegetation-disturbing activities/Entire Project	Permittee	
16	Covered Species Injury. If a Covered Species is injured as a result of Covered Activities, the Designated Biologist shall immediately take it to a CDFW approved wildlife rehabilitation or veterinary facility that routinely evaluates and treats amphibians, small mammals, or canids as appropriate. Prior to the start of Covered Activities, Permittee shall obtain CDFW's written approval of one or more such facilities that routinely evaluate and treat amphibians, small mammals, and canids. Permittee shall bear any costs associated with the care or treatment of such injured Covered Species. Permittee shall notify CDFW of the injury to the Covered Species immediately unless the incident occurs outside of normal business hours. In that event, CDFW shall be notified no later than the next business day. Notification to CDFW shall be via telephone or e-mail, followed by a written incident report. Notification shall include the date, time, location, and circumstances of the incident and the name of the facility where the animal was taken.	ITP Condition #9.17	Before commencing ground- or vegetation-disturbing activities/Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
17	<p>Pre-Construction Surveys for Mammalian Covered Species The Designated Biologist(s) shall perform a pre-construction survey for mammalian Covered Species (e.g. SJKF, GKR, and SJAS) no more than 30 days prior to ground- or vegetation-disturbing activities for each construction phase and maintenance activity that results in ground or vegetation disturbance. Surveys shall cover the disturbance area and a 500-foot buffer for Covered Species dens. For planned and unplanned maintenance activities, which result in ground or vegetation disturbance, surveys for Covered Species dens shall cover the disturbance area and (a) a 500-foot buffer during pupping season (February through May) or (b) a 50-foot buffer during all other months. A report documenting the results of the pre-construction surveys shall be submitted to CDFW within 30 days after performing any such survey. Pre-construction surveys may not be possible for forced outages and other unanticipated emergencies (defined by potential for harm to persons, property or the environment) requiring immediate attention. The Designated Biologist(s) shall be notified of forced outage activities that result in ground or vegetation disturbance as soon as is practicable and shall survey for Covered Species dens or burrows, which surveys shall cover the disturbance area and (a) a 500-foot buffer during pupping season (February through May) or (b) a 50-foot buffer during all other months, as soon as is practicable after being notified of forced outages and other unanticipated emergencies. CDFW shall be notified as soon as practicable, and no later than 24 hours, after commencement of any ground- or vegetation-disturbing forced outage activities initiated prior to a preconstruction survey.</p>	ITP Condition #9.19	Before commencing ground- or vegetation-disturbing activities/entire project	Permittee	
18	<p>SJKF Tracking During Construction. To track SJKF on the Project Footprint so they can be avoided, Permittee shall trap and collar all SJKF on the Project Footprint and fit them with radio or GPS collars prior to initiating any ground-disturbing activities. The Designated Biologists shall continually monitor collared SJKF for the duration of the Project's construction phase. All adult SJKF using the Project Footprint shall be collared. An individual who has demonstrated trapping experience while holding a memorandum of understanding pursuant to Fish and Game Code Section 2081(a) that permits SJKF trapping shall complete all trapping and coordinate all tracking. Permittee shall submit the trapper's name and qualifications to CDFW for approval a minimum of 30 days prior to commencing with Covered Activities</p>	ITP Condition #9.20	Before commencing ground- or vegetation-disturbing activities/entire project	Permittee	
19	<p>GKR Translocation Plan. Permittee shall submit a GKR translocation plan to CDFW prior to initiating ground-disturbing activities. Translocation activities shall not proceed until the GKR salvage plan has been approved in writing by CDFW's Regional Representative. Once the GKR translocation plan is approved by CDFW, it may be used for all GKR translocation activities for the duration of the ITP. Any proposed changes to the GKR translocation plan shall be submitted in writing to CDFW and approved by CDFW in writing prior to implementation of any proposed GKR translocation plan modifications. The GKR translocation plan will identify the trapping methods, receiver sites for each GKR source area, and receiver site preparation methods, including cage and artificial burrow construction details</p>	ITP Condition #9.23.2	Before commencing ground- or vegetation-disturbing activities.	Permittee	
20	<p>GKR Receiver Site Selection. GKR will be translocated to the nearest available receiver site that meets the following criteria. Permittee shall select receiver sites that by all measures would maximize the potential to accelerate recolonization of areas within the Habitat Management Lands conserved per Condition of Approval 10. Receiver sites will have been farmed historically and reverted to grassland. Receiver Sites will be devoid of existing sign of GKR (e.g. no scat or "inactive" precincts) but will be demonstrated to have suitable substrate, landscape position (not susceptible to flooding), and vegetation to support GKR</p>	ITP Condition #9.23.3	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
21	<p>GKR Survey and Trapping. Prior to any ground disturbance in each discrete work area within the Project, the Designated Biologist(s) shall survey the area to be disturbed and a 50-ft buffer and identify all potential GKR burrows within the area and buffer. All burrows with diagnostic GKR characteristics or that are otherwise suspected to be GKR burrows will be flagged. All of the potential precincts within 50 feet of ground-disturbing activities, whether they appear active or inactive, will then be surrounded by exclusionary fence and trapped by the Designated Biologist(s) for six consecutive nights prior to ground-disturbing activities. All captured GKR shall be relocated as per the GKR translocation plan required in ITP Condition of Approval 9.23.2. Following trapping and relocation, the precincts will be immediately excavated under a Designated Biologist's direct supervision and with a Designated Biologist present at all times at the excavation to relocate any Covered Species encountered as per the GKR translocation plan required in ITP Condition of Approval 9.23.2. Haystacks, seed caches, and seed stores found with live-trapped GKR, or in excavated burrows, shall be relocated with the associated individual GKR, and shall be placed within the release cages or artificial burrows.</p>	ITP Condition #9.23.4	Before commencing ground- or vegetation-disturbing activities /Entire Project	Permittee	

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>22 Habitat Management Land Acquisitions. Permittee shall acquire and provide for both the permanent protection and management of a minimum of 25,618 or 26,118 acres of Habitat Management (HM) lands consisting of:</p> <p>Silver Creek Ranch HM Lands (10,890 acres), located southeast of the Project Footprint (See ITP ITP Figure 1);</p> <p>Valadeao Ranch HM Lands (10,772 acres), contiguous to and located west, north, and east of the Project Footprint (See ITP ITP Figure 1);</p> <p>Valley Floor HM Lands (2,514 acres), contiguous to the Project Footprint (See ITP ITP Figure 1);</p> <p>On-Site HM Lands (442 acres), located within the Project Footprint (See ITP ITP Figure 1); and</p> <p>Panoche Valley HM Lands (1000 acres), to be located within the Panoche Valley and to be approved in advance in writing by CDFW. As an alternative to the purchase and permanent protection and management of the 1000 acres of Valley HM Lands, Permittee may elect to purchase one or more conservation easements over 1500 acres of HM Lands in the Panoche Valley to be approved in advance in writing by CDFW. Regardless of whether Permittee acquires and conserves 1000 acres or conserves 1500 acres, all Panoche Valley HM Lands shall provide high-quality, in-kind habitat for GKR.</p> <p>The Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, On-Site HM Lands, and Panoche Valley HM Lands are collectively referred to herein as 'Project HM Lands.'</p> <p>Permanent protection and funding for perpetual management of the Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, and On-Site HM Lands must be complete before starting Covered Activities. To satisfy this condition, Permittee must obtain written approval from CDFW for both the form of the conservation easement and the title review and record CDFW-approved conservation easements on all 24,618 acres of such HM Lands and secure or deposit the costs for the long-term management endowment, initial and capital costs, and interim costs (first 3 years of management) for all such HM Lands prior to engaging in any Covered Activities.</p> <p>Permanent protection and funding for perpetual management of the Panoche Valley HM Lands must be complete within 6 months of the effective date of the ITP and Security must be provided pursuant to ITP Condition of Approval 11. In the event Permittee is unable to satisfy this requirement with respect to the Panoche Valley HM Lands within 6 months, CDFW may, in its sole discretion, extend this period by up to 3 months if: 1) it finds Permittee has been working in good faith to satisfy this condition and has made substantial progress toward its completion, and 2) there is sufficient security in place for the extended timeframe.</p>	ITP Condition #10	Before commencing ground- or vegetation-disturbing activities for all except Valley HM Lands. For Valley HM Lands, within 180 days of issuance of the ITP if Security is provided.	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
23	<p>Mineral Rights. Except as expressly provided in the ITP Conditions of Approval, prior to starting Covered Activities Permittee shall acquire a minimum of 75% of the non-federal mineral rights for each parcel within the Project HM Lands. Notwithstanding the foregoing:</p> <p>For the following parcels, Permittee shall obtain the minimum percentage of mineral rights indicated below:</p> <p>APNs 026-310-005, 026-310-006, and 027-360-008: 0% for a portion of each parcel.</p> <p>APN 027-360-011: 63.9% for a portion of the parcel and 0% for the remainder.</p> <p>APN 027-330-020: 0%.</p> <p>APN 027-350-008: 22.5%.</p> <p>APN 027-350-010: 45%.</p> <p>APN 027-360-002: 63.9%.</p> <p>For the following parcels, Permittee shall obtain and record a binding waiver of surface rights:</p> <p>APN 027-260-003.</p> <p>APN 027-260-011.</p> <p>APN 027-270-008.</p> <p>APN 027-290-001.</p>	ITP Condition #10	Before commencing ground- or vegetation-disturbing activities for all except Valley HM Lands. For Valley HM Lands: within 180 days of issuance of the ITP if Security is provided.	Permittee	

	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>24 Mitigation Measure</p> <p>Federal Mineral Rights. With respect to any Severed Mineral Rights which are held and managed by the U.S. Department of the Interior, Bureau of Land Management ("BLM") ("BLM Severed Mineral Rights"), Permittee shall use all reasonable efforts to obtain from BLM a permanent conveyance of all such BLM Severed Mineral Rights pursuant to the Federal Land Policy and Management Act of 1976, as amended (FLPMA) (Title 42 U.S.C. § 1719(b); Title 43 C.F.R., Part 2720), or any other applicable federal law or regulation. Within 30 days of the effective date of the ITP, Permittee shall file with BLM any and all applications, requests, or other documents necessary to initiate the conveyance process for all BLM Severed Mineral Rights on the Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, and On-Site HM Lands, and Permittee shall diligently and in good faith pursue and prosecute the conveyance(s) until Permittee receives a final decision from BLM. Within 30 days of recordation of the conservation easement(s) for the Panoche Valley HM Lands, Permittee shall file with BLM any and all applications, requests, or other documents necessary to initiate the conveyance process for all BLM Severed Mineral Rights, if any, on the Panoche Valley HM Lands, and Permittee shall diligently and in good faith pursue and prosecute the conveyance(s) until Permittee receives a final decision from BLM.</p> <p>With respect to the conveyances both for the Silver Creek Ranch HM Lands, Valadeao Ranch HM Lands, Valley Floor HM Lands, and On-Site HM Lands and for the Panoche Valley HM Lands, Permittee shall use all reasonable efforts to have BLM promptly segregate all of the BLM Severed Mineral Rights from settlement, sale, location, or entry for the maximum allowable time period pursuant to Section 205(b) of FLPMA (43 U.S.C. Section 1719) and the implementing regulations at 43 C.F.R., Part 2720, and to renew such segregation upon its expiration, as applicable.</p> <p>Permittee shall provide security in the amount of four million, eight hundred seventy-one thousand, eight hundred thirty-two dollars (\$4,871,832.00) with respect to its obligation to seek conveyances of the BLM Severed Mineral Rights. The security shall allow CDFW to draw on the principal sum if the BLM determines not to convey the BLM Severed Mineral Rights to the surface owner pursuant to the application(s) filed pursuant to this Condition of Approval. The security shall be released to Permittee if and to the extent the BLM conveys the BLM Severed Mineral Rights to Permittee.</p> <p>With respect to all surface and subsurface mineral rights held by Permittee or hereafter obtained by Permittee, through the BLM conveyance process or otherwise, the conservation easements recorded on the Project HM Lands shall prohibit any and all: (a) excavating, dredging, mining, drilling, removing, exploring for, or extracting minerals, loam, soil, sands, gravel, rock, or other material on or below the surface of the Project HM Lands without the written consent of CDFW; and (b) transferring, encumbering, selling, leasing, or other separation of the mineral rights without the written consent of CDFW.</p>	<p>ITP Condition #10</p>	<p>Before commencing ground- or vegetation-disturbing activities for all except Panoche Valley HM Lands. For Panoche Valley HM Lands: within 180 days of issuance of the ITP if Security is provided.</p>	<p>Permittee</p>	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
25	CDFW shall be expressly named in all conservation easements on the Project HM Lands as a third-party beneficiary. Permittee shall obtain CDFW written approval of all conservation easements before their execution and recordation. No conservation easement shall be approved by CDFW unless it complies with Government Code sections 65965-65968, as amended, and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e);	ITP Condition # 10.2.1.3	Before commencing ground- or vegetation-disturbing activities for all except Panoche Valley HM Lands. For Panoche Valley HM Lands: within 180 days of issuance of the ITP if Security is provided.	Permittee	
26	Project HM Lands Approval. Obtain CDFW written approval of the Project HM lands before acquisition and/or transfer of the land by submitting, before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (see ITP Attachment 2B) identifying the Project HM Lands to be purchased, conserved, and conveyed to an approved entity as mitigation for the Project's impacts on Covered Species.	ITP Condition # 10.2.2	Before commencing ground- or vegetation-disturbing activities for all except Panoche Valley HM Lands. For Panoche Valley HM Lands: within 180 days of issuance of the ITP if Security is provided.	Permittee	
27	Project HM Lands Documentation. Provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents (see ITP Attachment 2A). All documents conveying the Project HM Lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services.	ITP Conditions # 10.2.3	Before commencing ground- or vegetation-disturbing activities for all except Panoche Valley HM Lands. For Panoche Valley HM Lands: within 180 days of issuance of the ITP if Security is provided.	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
28	Land Manager. Designate both an interim and long-term land manager approved by CDFW. The interim and long-term land managers may, but need not, be the same. Documents related to land management shall identify both the interim and long-term land managers. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change.	ITP Conditions #10.2.4	Before commencing ground- or vegetation-disturbing activities for all except Panoche Valley HM Lands. For Panoche Valley HM Lands, within 180 days of issuance of the ITP if Security is provided.	Permittee	
29	Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of Project HM Lands, once the Project HM Lands have been approved by CDFW. Permittee must still obtain CDFW approval for the Valley HM Lands. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see http://www.dfg.ca.gov/habconcomplan/mitbank/); (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, if applicable; and (7) installing signage.	ITP Condition # 10.2.5	Before commencing ground- or vegetation-disturbing activities or, if Security is provided, within 6 months of the effective date of the ITP or within 9 months if CDFW approves the extended period to obtain the Panoche Valley HM Lands	Permittee	
30	Interim Management (Initial and Capital). Provide for the interim management of the Project HM Lands. Permittee shall ensure that the interim land manager implements the interim management of the Project HM Lands as described in the final management plan and conservation easement approved by CDFW. The interim management period shall be a minimum of three years from the date of Project HM Land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, grazing management, grazing infrastructure maintenance, CTS pond maintenance, road maintenance, and vegetation and invasive species management. Permittee shall either (1) provide a security to CDFW for the minimum of three years of interim management that the land owner, Permittee, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by CDFW to pay the land manager annually in advance, or (3) establish a short-term enhancement account with CDFW or a CDFW approved entity for payment to the land manager.	ITP Condition # 10.2.6	Before commencing ground- or vegetation-disturbing activities or, if Security is provided, within 6 months of the effective date of the ITP, or within 9 months if CDFW approves the extended period to obtain the Panoche Valley HM Lands	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
31	<p>Endowment Fund. Permittee shall ensure that the Project HM Lands are perpetually managed, maintained, and monitored by the long-term land manager as described in the ITP, the conservation easements, and the final management plan approved by CDFW. After obtaining CDFW approval of the Project HM Lands, Permittee shall provide long term management funding for the perpetual management of the Project HM Lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that provides funds for the perpetual management, maintenance, monitoring, and other activities on the Project HM Lands consistent with the management plan(s) required by Condition of Approval 10.2.5. Endowment as used in the ITP shall refer to the endowment deposit and all interest dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by the ITP. Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.</p> <p>After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the Project HM Lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the Project HM Lands in perpetuity to preserve their conservation values in accordance with the ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.</p> <p>Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be an entity qualified pursuant to Government Code sections 65965-65968, as amended. Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e). Within thirty days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(4) and, if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with Section 2081(b)(4).</p>	ITP Condition # 10.3	Before commencing ground- or vegetation-disturbing activities or, if Security is provided, within 6 months of the effective date of the ITP, or within 9 months if CDFW approves the extended period to obtain the Panoche Valley HM Lands	Permittee	
32	<p>Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be an entity qualified pursuant to Government Code sections 65965-65968, as amended. Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e). Within thirty days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(4) and, if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with Section 2081(b)(4).</p>	ITP Condition # 10.3.1	Before commencing ground- or vegetation-disturbing activities or, if Security is provided, within 6 months of the effective date of the ITP, or within 9 months if CDFW approves the extended period to obtain the Panoche Valley HM Lands	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
33	<p>Calculate the Endowment Funds Deposit. After obtaining CDFW written approval of the Project HML Lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) or PAR-equivalent analysis (hereinafter "PAR") to calculate the amount of funding necessary to ensure the long-term management of the HML lands (Endowment Deposit Amount). Permittee shall submit to CDFW for review and approval the results of the PAR before transferring funds to the Endowment Manager.</p> <p>Capitalization Rate and Fees. Permittee shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the PAR and adjust for any additional administrative, periodic, or annual fees.</p> <p>Endowment Buffers/Assumptions. Permittee shall include in PAR assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:</p> <p>Ten-Percent Contingency. A 10% contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.</p> <p>Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first 3 years after full funding.</p> <p>Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW.</p>	ITP Condition # 10.3.2-10.3.2.2.3	Before commencing ground- or vegetation-disturbing activities or, if Security is provided, within 6 months of the effective date of the ITP, or within 9 months if CDFW approves the extended period to obtain the Panoche Valley HML Lands.	Permittee	
34	<p>Transfer Long-term Endowment Funds. Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above and within 6 months of the effective date of this ITP, or within 9 months of the effective date of this ITP if CDFW extends the time period in which Permittee must permanently protect the Panoche Valley HML Lands. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this ITP. Government Code sections 65965-65968, as amended, and Pioscale Code sections 18501-18510, as amended.</p>	ITP Condition # 10.3.3	Before commencing ground- or vegetation-disturbing activities or, if Security is provided, within 6 months of the effective date of the ITP, or within 9 months if CDFW approves the extended period to obtain the Panoche Valley HML Lands.	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
35	<p>Habitat Restoration. Permittee shall restore on-site all Covered Species habitat that will be temporarily disturbed during construction to pre-Project or better conditions. Within six (6) months of issuance of the ITP, Permittee shall prepare a Vegetation Restoration Plan to facilitate revegetation of temporary construction disturbance on-site, and shall ensure that the Plan is successfully implemented by the contractor. The Plan shall include detailed specifications for restoring all temporarily disturbed areas, such as seed mixes and application methods. The plan shall also indicate the best time of year for seeding to occur. Success criteria will be to achieve equivalent grass and forb cover of similar composition to undisturbed reference areas in the Project Area or the Project HM lands.</p>	<p>ITP Condition # 10.3.4</p>	<p>Prepare plan within 6 months of ITP issuance; implement upon completion of construction</p>	<p>Permittee</p>	

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>36</p> <p>Habitat Enhancement on Mitigation Lands. CDFW has determined that enhancement of Covered Species habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result from implementation of the Covered Activities.</p> <p>Where both shrublands and grasslands are available, SJRF has been found to select shrublands for foraging and grasslands for denning. A mosaic of grasslands and shrublands has been found to provide a more diverse and robust prey base for SJRF, which can buffer against fluctuations in prey base and habitat functions due to stochastic events and to allow spatial partitioning between SJRF and coyotes, which may reduce predation on SJRF. Shrub cover is also associated with persistent SJAS populations and is understood to be an important component of their habitat. Higher densities of SJAS are often observed in shrublands than grasslands.</p> <p>In the management plans required by Condition of Approval 10.2.5, Permittee shall include a plan to enhance vegetation on Project HML Lands for Covered Species as described below. Permittee shall fund the vegetation enhancement on Project HML Lands as required by Condition of Approval 10.2 and 10.3.</p> <p>The Project HML lands management plans shall provide for restoration of allscale (Atriplex polyacarpa), California ephedra (Ephedra californica), and/or other perennial shrub species appropriate to the HML lands where the native shrub cover has been removed or adversely altered by livestock grazing, fire, farming, or other anthropogenic causes. Target shrub cover shall be achieved within 10 years of acquisition/recording of conservation easements, as required by Condition of Approval 10.2 and then maintained in perpetuity.</p> <p>The Project HML lands management plans shall rely on reference sites to determine target shrub species and cover per species, and annual vegetation height, for optimum Covered Species management. If CDFW and Permittee agree that suitable reference sites are not available, then the following values shall be used.</p> <p>15-20% shrub cover (90% confidence interval, statistical power of no less than 0.8), distributed in patches throughout the Project HML Lands, on 50% of Project HML lands where slopes are less than 5 degrees in patches of 100 acres or greater. No plantec patch greater than 5 acres shall exceed 35% shrub cover. Any 5 acre patch exceeding 35% shrub cover shall not be counted toward the overall goal of 15-20% shrub cover over 50% of Project HML lands.</p> <p>An average height of annual vegetation (grasses and forbs) of less than 5 inches during the growing season (February 15 to April 30).</p> <p>Residual Dry Matter (RDM) measurement of 500 to 1,500 pounds per acre in normal and above-average rainfall years.</p> <p>At a minimum, soil type, aspect, and precipitation level of Project HML lands shall be compared to reference sites to determine appropriate shrub species and locations for establishment on the Project HML lands.</p> <p>Shrub cover shall be measured annually on the Project HML lands undergoing shrub restoration until the performance criteria are met and then no less than once every 5 years in perpetuity. If, after shrub cover criteria are initially met, a subsequent monitoring session determines that shrub cover criteria are no longer being met, then the HML lands management plans shall require the Project HML lands manager to consult with CDFW and the USFWS to determine measures required to remove excess/establish additional shrub cover and the management plans shall require the Project HML lands manager to implement those measures.</p> <p>Shrub cover shall be monitored by current aerial photography/photogrammetric methods and transferred to a Geographical Information System for analysis. Other methods may be used if approved by CDFW in the Project HML lands management plans or requested by the HML lands manager and approved of in writing by CDFW.</p> <p>Seeds for shrub establishment shall be obtained from local, naturally-occurring source populations in the Panamra Valley.</p> <p>Vegetation target values shall be monitored and maintained on the Project HML lands in perpetuity. Any change in target vegetation composition, cover, or structure values after initial approval of the management plans shall be approved by CDFW in advance in writing. CDFW retains the right to change the target values at its sole discretion as appropriate for ongoing Covered Species management.</p>	<p>ITP Condition # 10.5</p>	<p>Prepare plan prior to disturbing ground or vegetation, implement when HML lands management begins.</p>	<p>Permittee</p>	<p>14</p> <p>Rev. 2013.1.1</p>

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
37	<p>Performance Security. Permittee may proceed with Covered Activities only after Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 10 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:</p> <p>Security Amount. The Security shall be in the amount of \$42,542,490.00. This amount is based on the cost estimates identified in Condition of Approval 10.1 above.</p> <p>Security Form. The Security shall be in the form of an irrevocable letter of credit (see Attachment 3) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel. With advance CDFW approval, the Security may be provided in more than one instrument.</p> <p>Security Timeline. The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of the ITP, whichever occurs first.</p> <p>Security Holder. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.</p> <p>Security Transmittal. If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (see ITP Attachment 4) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other.</p> <p>Security Drawing. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that Permittee has failed to comply with the Conditions of Approval of the ITP.</p> <p>Security Release. The Security (or any portion of the Security then remaining) shall be released to Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:</p> <p>Written documentation of the acquisition of the HM lands, Copies of all executed and recorded conservation easements, Written confirmation from the approved Endowment Manager of its receipt of the full Endowment, and Timely submission of all required reports.</p> <p>Even if Security is provided, Permittee must complete the required acquisition, protection and transfer of all Project HM lands and record any required conservation easements in accordance with the terms of the ITP. CDFW may require Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if Permittee does not complete these requirements within the specified timeframe.</p>	ITP Condition # 11 through 11.7	Before Covered Activities begin or within 30 days after the effective date of the ITP, whichever occurs first.	Permittee	

DURING CONSTRUCTION				
38	Designated Biologist Authority. To ensure compliance with the Conditions of Approval of the ITP, the Designated Biologists shall have authority to immediately stop any activity that does not comply with the ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species.	ITP Condition # 7.3	Entire Project	Permittee
39	Biological Monitors. The Designated Biologists may authorize Biological Monitors to assist in ITP compliance efforts, under the direct supervision of the Designated Biologists, where specified in the Conditions of Approval of the ITP. Each Designated Biologist is responsible for ensuring that any biological monitor working under his or her supervision is knowledgeable and experienced in the biology and natural history of the Covered Species, the Conditions of Approval of the ITP, the definition of "take" in CESA, and in implementing standard avoidance and minimization measures used on construction projects in Covered Species habitat.	ITP Condition # 7.4	Entire Project	Permittee
40	Construction Monitoring Notebook. The Designated Biologists shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of the ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.	ITP Condition # 7.6	Entire Project	Permittee
41	Dust Control. Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Designated Biologist. Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles. Permittee shall not apply dust suppressant, surfactant, or soil binders or stabilizer products that may be harmful to Covered Species in upland or aquatic environments. Permittee shall obtain CDFW's written permission before applying any dust suppressant besides water or gravel. Permittee shall provide all available documentation of each product's safety or hazards to wildlife to CDFW with any such request for approval.	ITP Condition # 7.8	Entire Project	Permittee
42	Erosion Control Materials. Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting, photodegradable mesh, erosion control matting or similar material, in potential Covered Species' habitat. Permittee shall only deploy erosion control mats, blankets, or coil rolls that consist of only natural fiber, biodegradable materials.	ITP Condition # 7.9	Entire Project	Permittee
43	Project Access. Project-related personnel shall access the Project Area using existing routes, and routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. Permittee shall ensure that vehicle speeds do not exceed 20 miles per hour to avoid Covered Species on or traversing the roads. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to the ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.	ITP Condition # 7.12	Entire Project	Permittee
44	Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 7.11 of the ITP.	ITP Condition # 7.13	Entire Project	Permittee

45	Hazardous Waste. Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.	ITP Condition # 7.14	Entire Project	Permittee	
46	CDFW Access. Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control, and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in the ITP.	ITP Condition # 7.15	Entire Project	Permittee	
47	Compliance Monitoring. A Designated Biologist shall be on-site for the duration of the day on which ground disturbing activities are initiated during construction, planned maintenance, or unplanned maintenance activities and on any day when construction, planned maintenance, or unplanned maintenance activities occur in any footprint with vegetation, small mammal burrows, and/or where potential Covered Species dens or burrows do or may occur. The Designated Biologist on site shall have been approved by CDFW for the Covered Species which could be taken during the Covered Activities which would occur on that day. Due to the urgent/emergency nature of forced outages, the Designated Biologist(s) may not be immediately on-site during forced outage activities that result in ground or vegetation disturbance. The Designated Biologist(s) shall be notified of forced outage activities that result in ground or vegetation disturbance, or where small mammal burrows, and/or where potential Covered Species dens or burrows do or may occur, as soon as is practicable and shall be present to monitor ground or vegetation disturbing activities, or where small mammal burrows, and/or where potential Covered Species dens or burrows do or may occur, as soon as is practicable. The Designated Biologist(s) or Biological Monitor(s) shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of the ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Designated Representative or Designated Biologist(s) shall prepare daily written observation and inspection records summarizing oversight activities and compliance inspections, observations of Covered Species and their sign, survey results, and monitoring activities required by the ITP. During the construction period, the Designated Biologist(s) or Biological Monitors shall conduct daily compliance inspections. During O&M, the Designated Biologist(s) or biological monitors under the supervision of the Designated Biologist(s) shall conduct monthly compliance inspections.	ITP Condition # 8.3	Entire Project	Permittee	
48	Monthly Compliance Reports during Construction. During the construction phase, the Designated Representative or Designated Biologist(s) shall compile the observation and inspection records identified in Condition of Approval 6.3 into a monthly Compliance Report and submit it to CDFW along with a copy of this MMRP table with notes showing the current implementation status of each mitigation measure. Monthly Compliance Reports shall be submitted to the CDFW offices listed in the Notices section of the ITP and via e-mail to CDFW's Regional Representative and Headquarters CESA Program. At the time of the ITP's approval, the CDFW Regional Representative is Dave Hacker (david.hacker@wildlife.ca.gov) and Headquarters CESA Program email is CESA@wildlife.ca.gov. CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.	ITP Condition # 8.5	During Construction.	Permittee	

49	<p>Annual Status Report. Permittee shall provide CDFW with an Annual Status Report (ASR) no later than March 31 of every year beginning with issuance of the ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Monthly Compliance Reports for that year identified in Condition 7.5; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing, and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) a summary of findings from pre-construction surveys (e.g., number of times a Covered Species or a den or burrow was encountered, location, if avoidance was achieved, if not, what other measures were implemented); (7) beginning and ending dates of O&M, emergency related, and other Covered Activities undertaken during the reporting year; (8) all relevant information concerning Permittee's efforts to terminate mineral rights on the HMLands pursuant to Condition 9; (9) information about other Project impacts on the Covered Species; (10) an accounting, description of the nature of disturbance within, and delineation of the areas subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance, provided in both paper map and shapefile formats; and (11) information about other Project impacts on the Covered Species.</p>	ITP Condition # 8.6	Entire Project	Permittee	
50	<p>CNDDB Observations. The Designated Biologist(s) shall submit all observations of Covered Species in new areas (i.e. where they have not been previously reported to the CNDDB) to CDFW's California Natural Diversity Database (CNDDB) within 60 calendar days of the observation. The Designated Biologist(s) shall include copies of the submitted forms with the next monthly Compliance Report or ASR, whichever is submitted first relative to the observation. For CTS, this measure applies to all upland and aquatic observations. Point observations may be summarized into larger polygons.</p>	ITP Condition # 8.1	Entire Project	Permittee	
51	<p>Notification of Take or Injury. Permittee shall immediately notify the Designated Biologist if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Designated Biologist or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (569) 243-4005 x151. The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.</p>	ITP Condition # 8.9	Entire Project	Permittee	

52	<p>Fences. Permittee shall not install wildlife exclusion fencing except as expressly stated in Conditions of the ITP. Permittee shall ensure that all fences during construction and O&M will generally be permeable for Covered Species. All solar array perimeter fences shall be permeable at all locations to all Covered Species. Impassable fences are permitted only for wildlife exclusion purposes as discussed below or when Permittee has obtained written concurrence from CDFW to install impermeable fencing to avoid a health and safety concern for the Covered Species or a risk to human health, safety, or property.</p> <p>Permittee may install temporary SJKF exclusion fencing around the temporary laydown yards (ITP Figure 2) and up to 50 acres of staging areas as described in Condition of Approval 9.3.</p> <p>Permittee may install permanent SJKF exclusion fencing around the electrical substation and switchyards.</p> <p>Any chain link fence intended to exclude SJKF shall have vinyl slats or other material installed from the bottom of the fence up to at least three feet from the ground to prevent kit foxes from getting their heads stuck in the fence.</p> <p>Permittee shall install and maintain in good working condition a fence to exclude all Covered Species from each construction water pond until the ponds are removed at the end of the construction phase. A Designated Biologist or Biological Monitor shall inspect the ponds and the interior of the fencelines for any trapped or killed Covered Species at the beginning and end of each work day.</p>	ITP Condition # 9.1 through 9.1.4	Entire Project	Permittee	
53	<p>Stockpiling Materials. Permittee shall stockpile all materials and equipment in a manner that discourages Covered Species use. In all locations, bundled or loose materials not on pallets shall be placed on skids, as opposed to directly on the ground, to elevate them and discourage use by dispersing CTS. Pallets or materials on skids outside of SJKF exclusionary fencing shall be spread out to avoid creating extensive galleries attractive to SJKF, or placed on taller skids to elevate them high enough from the ground to discourage SJKF using the materials as a den.</p>	ITP Condition # 9.2	Entire Project	Permittee	
54	<p>Use of and Staging in Temporary Impact Areas. This condition does not apply to the temporary laydown yards shown on ITP Figure 2 of the ITP. Permittee shall minimize Covered Species habitat disturbance in the temporary impact areas shown on ITP Figure 4 of the ITP to the maximum extent practicable. Permittee shall avoid all GKR burrows or precincts in the temporary impact areas by at least 50 feet while conducting Covered Activities in the temporary impact areas. Permittee shall conduct no earthwork in the temporary impact areas except as needed to construct, utilize, and remove the temporary water ponds. Permittee shall not stockpile materials or stage equipment in the temporary impact areas for more than 24 hours. Permittee may elect to utilize up to 50 acres within the temporary impacts area (in addition to the Temporary Laydown Yards already identified) within which to stockpile materials and equipment for greater than 24 hours.</p>	ITP Condition # 9.3	Entire Project	Permittee	

56	Road and Fence Construction and Buffers. Permittee shall limit temporary disturbance from road construction activities to the width of one full-size pickup truck on either side of the permanent footprint of the road surface, prism, and/or cut slopes that are necessary to route the road. Permittee shall access and construct perimeter fences with only rubber-tired vehicles or on foot, and shall conduct no earthwork for the perimeter fences except for postholing. All vehicles will avoid GKR precincts by at least 50 feet while constructing perimeter fences. No GKR precincts, SJAS burrows, or SJKF burrows shall be excavated for perimeter fence construction.	ITP Condition # 9.4	Entire Project	Permittee	
56	Project Area Lands Management. Permittee shall manage the solar energy generation facility compatibly with Covered Species to the maximum extent practicable. Permittee shall manage vegetation primarily through grazing to control vegetation height and density to the extent practicable to maximize the potential for any residual habitat value for Covered Species during O&M in the Project Area and adjacent HM lands. If the performance monitoring required in Condition of Approval 10.7 detects significantly less proportional use of "on-site" HM Lands and adjacent off-site habitat by SJKF compared to intact habitat areas, or significantly greater SJKF predation in the "on-site" HM Lands and adjacent habitat, then Permittee shall consult with CDFW and the USFWS to determine additional management actions and monitoring that Permittee shall implement on the Project Area, if necessary, including management of vegetation, SJKF or predator prey bases, and predator subsidies.	ITP Condition # 9.5	Entire Project	Permittee	
57	Treatment of On-Site Conservation Lands during Construction and O&M. Permittee shall not disturb ground or vegetation on the on-site conservation lands area (ITP Figure 6), beyond the limits of disturbance depicted in ITP Figures 2 and 4. Upon commencement of ground- or vegetation-disturbing activities, Permittee shall implement the grazing to be approved for HM lands until the on-site conservation lands have been protected in perpetuity as required by Condition of Approval 10.	ITP Condition # 9.6	Entire Project	Permittee	
58	Equipment Fueling. Mobile equipment fueling and maintenance shall occur at least 100 feet from Covered Species dens, burrows, or precincts. Permanent and semi-permanent equipment fueling and maintenance areas shall be initially located at a distance of at least 100 feet from Covered Species dens, burrows, or precincts, and shall include permanent containment devices that will preclude fuel or other liquids from exiting the equipment fueling maintenance area in the event of a spill or leak. Sufficient spill containment and cleanup equipment shall be present at all mobile, temporary, and permanent equipment fueling locations.	ITP Condition # 9.7	Entire Project	Permittee	
59	Vehicle Parking. Permittee shall not park vehicles on top of Covered Species dens, burrows, or precincts except where they have been excavated to translocate Covered Species in the temporary laydown yards shown on ITP Figure 2 and permanent impact areas. Vehicles left overnight shall not be located within 50 feet of GKR precincts to the greatest extent practicable.	ITP Condition # 9.8	Entire Project	Permittee	
60	Lighting. No permanent or temporary, fixed, exterior lighting, including motion-triggered security lighting, shall cast light on Covered Species habitat beyond the footprint of permanent or temporary Project facilities between sunset and sunrise. Motion-triggered lighting (including visible spectrum and infrared) shall not be used in solar panel arrays or elsewhere in the Project Area except within or at the perimeter of permanent and temporary buildings or covered assembly areas. Exterior, fixed lighting at all Project facilities shall be turned on only when people are present, unless required by federal, state, or local law.	ITP Condition # 9.9	Entire Project	Permittee	

61	<p>Preventing Entrapment in Pipes or other Structures. Permittee shall ensure that all pipe, conduit, culverts, or similar materials stockpiled or installed in the Project Area with a diameter of 1.5-18 inches will be capped or otherwise enclosed at the ends to prevent covered species entry (excepting road culverts after their installation). A Designated Biologist or Biological Monitor shall thoroughly inspect all such materials for Covered Species before they are moved, buried, or capped. If a Covered Species is discovered inside such material, that section of material shall not be moved until the animal has escaped on its own. Permittee shall not leave any permanent pipes, conduit, electrical cabinets, or similar materials or structures open where Covered Species may enter them and become trapped.</p> <p>Covered Species Inspection. Workers shall inspect for Covered Species under vehicles and equipment every time the vehicles and equipment are moved. If a Covered Species is present, the worker shall wait for the Covered Species to move on its own to a safe location. Alternatively, the Designated Biologist(s) shall be contacted to determine if the animal may be safely moved within the conditions of the ITP.</p>	ITP Condition # 9.10	Entire Project	Permittee
62	<p>Covered Species Inspection. Workers shall inspect for Covered Species under vehicles and equipment every time the vehicles and equipment are moved. If a Covered Species is present, the worker shall wait for the Covered Species to move on its own to a safe location. Alternatively, the Designated Biologist(s) shall be contacted to determine if the animal may be safely moved within the conditions of the ITP.</p>	ITP Condition # 9.11	Entire Project	Permittee
63	<p>Firearms and Dogs. Permittee shall prohibit firearms and domestic dogs from the Project Area and site access routes during Covered Activities, except for herding dogs and scent dogs as provided below, and firearms in the possession of authorized security personnel or federal, state, or local law enforcement officials.</p> <p>Permittee may use herding dogs (e.g., Australian shepherds, Queensland heeler(s) on the Project Footprint when necessary to control movement of livestock and when herding dogs are under voice, hand signal, or other direct control of a handler/shepherd/livestock operator. Permittee shall not allow livestock guardian dogs (e.g., Great Pyrenees, Pyrenean mastiff) or any other dogs in the Project Area at any time. Permittee shall not allow any dog to roam freely at any time in the Project Area.</p> <p>Scent-detection dogs may be used in the Project Area when under the control of a qualified handler in the implementation of conservation and monitoring tasks required by Project approvals and permits or for biological research activities.</p> <p>All dogs shall be immunized against rabies, parvovirus, and distemper, and Permittee shall have the immunization records on site for all dogs that are present in the Project Area.</p>	ITP Condition # 9.12	Entire Project	Permittee
64	<p>Night Work. Covered Activities shall occur during daylight hours only (sunrise to sunset) except for (1) capacitor bank wiring, connecting, and testing; (2) planned and unplanned maintenance activities that must occur after dark to ensure PV arrays are not energized; (3) interior use of the O&M facility; (4) unanticipated emergencies (defined by an imminent threat to life or a significant property interest), including forced outages and non-routine maintenance or repair requiring immediate attention; (5) security patrols, which are allowed 24 hours a day; or (6) Covered Species tracking, trapping, and/or translocation. Any vehicle traffic necessary during nighttime hours associated with the above activities shall be conducted with extra caution to minimize impacts to Covered Species. CDFW shall be notified as soon as possible and no later than 24 hours after commencement of any emergency night-time O&M activities that are conducted outside of the O&M facility.</p>	ITP Condition # 9.13	Entire Project	Permittee
65	<p>Soil Stockpiles. Permittee shall ensure that soil stockpiles are placed where soil will not pass into known or potential Covered Species breeding ponds at or near the Project Area, or into any other "waters of the State," in accordance with Fish and Game Code 5650. Permittee shall appropriately protect stockpiles to prevent soil erosion.</p>	ITP Condition # 9.15	Entire Project	Permittee

66	<p>Materials Inspection. Workers shall thoroughly inspect all construction pipe, culverts, or other similar structures with a diameter of one inch or greater that are stored for one or more overnight periods for the Covered Species before the object is subsequently moved, buried, or capped. If during inspection, an individual of the Covered Species is discovered inside a pipe, culvert, or similar structure, workers shall notify the Designated Biologist and allow the animal to safely escape that section of the structure before moving and utilizing the structure.</p>	ITP Condition # 9.16	Entire Project	Permittee	
67	<p>Covering, Ramping, and Inspecting Excavations. Permittee shall minimize the potential for Covered Species to become entrapped in excavations to the maximum extent practicable. To prevent inadvertent entrapment of Covered Species or any other animals during the construction phase of the Project, Permittee shall ensure that all excavated, steep-walled holes or trenches are covered, ramped, and inspected as described below. This measure does not apply to burrows excavated for salvaging Covered Species until such excavation is complete and no Covered Species remain in the burrow.</p>	ITP Condition # 9.18	Entire Project	Permittee	
68	<p>Covers. Permittee shall ensure that all trenches, holes, and other excavations with sidewalls steeper than a 1:1 (45 degree) slope are covered or ramped when workers and/or equipment are not actively working in them and at the end of each work day. Covers shall be made of plywood or similar solid material.</p> <p>From when all CTS breeding ponds within 1 mile of the excavation are dry in the spring or summer through October 14, and provided that the National Weather Service forecasts less than a 70% chance of precipitation at the Project Footprint within 72 hours, Permittee may elect to install escape ramps instead of covering excavations that are less than 6 feet deep. Escape ramps shall be of native soil or non-slip planks no less than 10 inches wide.</p> <p>From October 15 until all CTS breeding ponds within 1 mile are dry in the following spring or summer, and any additional time when the National Weather Service forecasts a minimum 70% chance of precipitation at the Project Footprint within 72 hours, all excavations shall be covered. If the excavation is less than six feet deep, Permittee shall ensure that the edges of the covers are either covered with dirt to prevent CTS from crawling under them or treated as discussed in the following paragraph for excavations that are greater than 6 feet deep.</p> <p>If the excavation is greater than 6 feet deep, then at all times of the year, two feet of hardware cloth (or another material approved by CDFW in writing for this purpose for this Project) shall extend beyond the edge of the cover boards. The hardware cloth shall be secured to the edge of the cover boards and to the ground to discourage Covered Species from digging under the edge and becoming injured in a fall. The hardware cloth shall conform to solid ground so that gaps do not exist between the cloth and the ground. Covering gaps with dirt or laying the hardware cloth over loose soil will not satisfy this requirement. The outer edges of the hardware cloth shall be secured to the ground with re-bar, minimum 10-inch soil staples, or similar means every 12 inches to prevent Covered Species from lifting the edges.</p> <p>If a situation is encountered that this measure does not anticipate and alternative methods of preventing entrapment or injury in excavations are warranted, then Permittee shall request and obtain CDFW's written concurrence prior to implementing the alternative methods.</p>	ITP Condition # 9.18.1-9.18.1.4	Entire Project	Permittee	

69	<p>Inspection of Excavations. The Designated Biologist(s) or Biological Monitor(s) shall perform all inspections of holes, trenches and other excavations, and covers and ramps required by this Condition. All steep-walled, uncovered holes, trenches and other excavations within the Project construction boundary shall be inspected at the beginning of the day, middle of the day, and end of the day for trapped animals. All covered holes, trenches and other excavations shall be inspected at least once daily for entrapped animals and for integrity of the covers. Before any holes, trenches or other excavations are filled, they shall be thoroughly inspected for trapped animals by a Designated Biologist or Biological Monitor.</p>	ITP Condition # 9.18.2	Entire Project	Permittee	
70	<p>Entrapped Animals. If any person discovers that a Covered Species has become trapped in an excavation, Permittee shall cease all Covered Activities in the vicinity and notify the Designated Biologist(s) immediately. Project workers and the Designated Biologist(s) shall allow Covered Species to escape unimpeded if possible before Covered Activities are allowed to continue, or the Designated Biologist(s) shall capture and relocate the Covered Species. If at any time a trapped or injured Covered Species is discovered, the USFWS and CDFW shall be notified within one working day of the incident.</p>	ITP Condition # 9.18.3	Entire Project	Permittee	

71	<p>SJKF Den Avoidance During Construction and O&M Activities. Permittee shall leave SJKF dens intact and accessible to foxes to the maximum extent practicable. Permittee shall avoid destroying SJKF dens unless they are in an area of direct and permanent ground alteration (e.g. grading area, building footprint) or their location poses a risk of direct harm to the species. If dens are in a solar array footprint that would not be graded, or in an area of temporary disturbance, the den will remain intact and the Designated Biologist(s) shall install a one-way door to prevent SJKF from utilizing the den during construction activities and remove the one-way door after construction activities. Permittee shall not destroy or modify dens, or exclude foxes from dens, that are beyond the direct footprint of ground disturbance to preempt their use and den buffer establishment.</p> <p>To avoid SJKF dens during ground- or vegetation-disturbing Covered Activities, Permittee shall implement the following den buffer requirements.</p> <p>During the construction phase. If a potential SJKF den (one that shows evidence of current use or was used in the past) is discovered or a SJKF is found in an "atypical" den (e.g., a stockpile of Project materials), a 50-foot buffer shall be established using flagging. If a known SJKF den is discovered, a buffer of at least 100 feet shall be established using fencing. If a natal den (den in which SJKF young are reared) is discovered, a buffer of at least 200 feet shall be established using fencing. Natal dens with pups shall be avoided by at least 500 feet. Buffer zones shall have restricted entry. Limited activities may be allowed within established buffers under the supervision of a Designated Biologist and with CDFW concurrence. Permittee shall notify the USFWS and CDFW's Regional Representative immediately by telephone or e-mail if any SJKF dens, natal dens or atypical dens are discovered.</p> <p>During Ground- or Vegetation-Disturbing O&M Activities. If a potential SJKF den (one that shows evidence of current use or was used in the past) is discovered or a SJKF is found in an "atypical" den (e.g., a pipe or culvert) during ground- or vegetation-disturbing O&M activities, a 30-foot buffer shall be established using permeable and highly visible fencing, rope, flagging, or tape. If a known SJKF den is discovered during ground- or vegetation-disturbing O&M activities and it is inactive, a buffer of at least 30 feet shall be established using permeable and highly visible fencing, rope, flagging, or tape. If a known SJKF den is discovered during ground- or vegetation-disturbing O&M activities and it is active, a buffer of at least 50 feet shall be established using permeable and highly visible fencing, rope, flagging, or tape. If a natal den (den in which SJKF young are reared) is discovered during ground- or vegetation-disturbing O&M activities, a buffer of at least 50 feet shall be established using rope or tape. Natal dens with pups shall be avoided by at least 500 feet during ground- or vegetation-disturbing O&M activities. Buffer zones shall have restricted entry during ground- or vegetation-disturbing O&M activities. Limited activities may be allowed within established buffers during ground- or vegetation-disturbing O&M activities under the supervision of a Designated Biologist and with CDFW concurrence. Permittee shall notify the USFWS and CDFW's Regional Representative immediately via telephone or email if any SJKF dens, natal dens, or atypical dens are discovered that could be affected by ground- or vegetation-disturbing O&M activities.</p>	ITP Condition # 9.21 through 9.21.2	Entire Project	Permittee	
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72	<p>SJKF Den Excavation During Construction and O&M Activities. For active dens, dens known to be active, and potential dens that exhibit signs of SJKF use or characteristics suggestive of SJKF dens (including dens in natural substrate and in/under man-made structures) within the portion of the Project Footprint to be disturbed and that cannot be avoided either during construction or during planned or unplanned maintenance activities as per Condition of Approval 9.21, if, after four consecutive nights of monitoring with tracking medium and infrared camera the Designated Biologist(s) has determined that SJKF is not currently present, the den may be destroyed. Any hole 4 inches or larger and exhibiting no signs of SJKF use or characteristics suggesting it is a SJKF den may be excavated under the supervision of the Designated Biologist(s) without advance tracking and camera monitoring. Natal dens shall not be excavated until the pups and adults have vacated and camera monitoring. Natal dens shall be excavated by the Designated Biologist(s) if the excavation process reveals evidence of current use by SJKF the USFWS and CDFW. If the excavation process reveals evidence of current use by SJKF then den destruction shall cease immediately and tracking or camera monitoring as described above shall be conducted/resumed. Destruction of the den may be completed when, in the judgment of the Designated Biologist(s), the animal has escaped from the partially destroyed den. Destruction of all types of SJKF dens shall be accomplished by careful excavation until it is certain no SJKF are inside. Dens to be destroyed shall be fully excavated, filled with dirt and compacted to ensure that SJKF cannot reenter or use the den during the construction period or during planned or unplanned O&M activities. If a SJKF does not vacate a den within a reasonable time frame, CDFW and the USFWS shall be contacted and Permittee shall obtain written guidance (email will suffice) from both agencies prior to proceeding with den destruction.</p>	ITP Condition # 9.22	Entire Project	Permittee
73	<p>GKR Avoidance and Translocation. GKR precincts shall be avoided to the maximum extent practicable. If earthwork (e.g., clearing, grubbing, blading, scraping, excavating, filling, solar panel array construction) must occur within GKR precincts, any precincts shall be live trapped and excavated by the Designated Biologist prior to the initiation of ground-disturbing construction activities to minimize direct mortality. GKR shall be trapped and relocated to a CDFW-approved release site identified in a GKR translocation plan.</p>	ITP Condition # 9.23	Entire Project	Permittee
74	<p>GKR Precincts on Off-Road Access Routes. All cross-country routes shall avoid GKR precincts to the maximum extent practicable. Where GKR precincts cannot be avoided by vehicles, Permittee shall temporarily place minimum 4- by 8-foot, 1-inch plywood sheets or stronger material upon which the vehicles' tires shall traverse the precincts to prevent burrow collapse. Seed caches or haystacks shall be avoided by vehicles.</p>	ITP Condition # 9.23.1	Entire Project	Permittee
75	<p>GKR Release Parameters. "Soft-release" methods in cages with artificially constructed burrows shall be used at receiver sites. GKR shall be placed at receiver sites in clusters of at least 30 animals. GKR neighbor relationships (location and distance of individual burrows relative to one another) shall be maintained within groups of translocated GKR. If isolated GKR are translocated, their release sites shall be on the periphery of any neighbor groups that are translocated.</p>	ITP Condition # 9.23.5	Entire Project	Permittee

76	GKR Dependent Juveniles and Pregnant or Lactating Females. GKR Dependent Juveniles and Pregnant or Lactating Females. Permittee shall ensure that no pregnant or nursing female or dependent juvenile GKR are disturbed during burrow excavation. Permittee shall not excavate precincts containing a pregnant lactating female or dependent juvenile. Permittee shall maintain a 250-foot buffer between precincts containing lactating females and or dependent young and all ground- or vegetation-disturbing activities until lactation has ceased. The precinct may be monitored by a remote camera to observe activity. Because the occupied precinct would be enclosed with fencing that would potentially inhibit or preclude foraging, a sufficient amount of seed to sustain a nursing female must be placed at the precinct opening. If the designated biologist can determine with certainty which precinct the lactating female is occupying, adjacent precincts may be excavated only if impacts to the precinct(s) occupied by the lactating female(s) are avoided.	ITP Condition # 9.23.6	Entire Project	Permittee	
77	GKR January 1-August 31 Trapping Constraints. To reduce the amount of time a lactating/nursing female may be in a trap, all traps set from January 1 through August 31 for the capture and relocation of giant kangaroo rats must be set no more than 1 hour prior to sunset and closed no more than 1 hour after sunrise. All traps set during this period when females may be lactating/nursing must also be checked for occupancy every 2 hours between sunset and sunrise and any captured GKR released immediately at the trap location.	ITP Condition # 9.23.7	Entire Project	Permittee	
78	GKR Weather Constraints for Trapping. Consistent with established parameters set in protocols for other San Joaquin Valley kangaroo rats, during the threat of inclement weather, such as the National Weather Service prediction of a 40 percent or greater chance of rain, all traps for giant kangaroo rats will be closed. Should the air temperature exceed 105 degrees Fahrenheit, all traps will be closed. If the air temperature is predicted to drop below 50 degrees Fahrenheit, synthetic baiting or other appropriate insulating material must be placed in each open trap. This material must be changed (replaced) each time a capture is made in a given trap.	ITP Condition # 9.23.8	Entire Project	Permittee	
79	Protection of GKR Food Caches. Where temporary, low-impact Covered Activities would occur and GKR burrow systems can be left in place while ensuring that the Covered Activities would directly take the GKR, any haystacks, seed caches, or other food stockpiled by GKR on the ground surface shall be left undisturbed to the greatest extent practicable. If avoidance of the food caches is not possible, the Designated Biologist shall implement measures to keep the food caches intact, including temporary relocation of the food (only in the daytime, seeds must be returned to original location for the night), cover the seeds with plywood to allow temporary vehicle or foot-traffic access, or implement other measures developed in consultation with CDFW.	ITP Condition #9.24	Entire Project	Permittee	
80	SJAS Translocation. A Designated Biologist shall trap and relocate SJAS to release sites, and following the methods, identified in a SJAS translocation plan prepared by Permittee and approved in writing by CDFW.	ITP Condition #9.25	Entire Project	Permittee	

81	<p>SJAS Burrow Avoidance and Excavation. Any burrows present within each discrete work area within the Project Area to be disturbed by earthwork, that are suspected or known to be occupied by SJAS, and that cannot be avoided by a 50-foot avoidance buffer, shall be live trapped during the day for 5 consecutive days by the Designated Biologist prior to the initiation of ground disturbing activities in each occupied discrete work area.</p> <p>Following live-trapping activities, any known or suspected SJAS burrows present within areas to be disturbed by earthwork (e.g., clearing, grubbing, blading, scraping, excavating, filling) shall be fully excavated by hand by the Designated Biologist during daylight hours to allow any remaining SJAS an opportunity to escape or be captured by hand as necessary (this Condition of Approval does not apply to SJAS burrows that will be disturbed only by foot traffic or single vehicle trips). Any SJAS encountered in excavated burrows during their active period shall be allowed to escape to the adjacent natural habitat or if captured shall be relocated as described in the translocation plan required in Conditions of Approval 9.25 and 8.10.</p>	ITP Condition # 9.26	Entire Project	Permittee
82	<p>Barriers to CTS Movement. Roadways shall be constructed without steep curbs, berms, or dikes which prevent CS from exiting the roadway. If curbs are necessary for safety and/or surface runoff, Permittee shall design and construct them as rounded or gently sloping structure so as to allow CTS to walk over them. If steep dikes are required, design shall include over-side drains or curb/dike breaks spaces at 25-foot intervals to allow CTS passage.</p>	ITP Condition # 9.27	Entire Project	Permittee
83	<p>CTS and Rain Forecast. The Designated Biologist(s) and Permittee shall monitor the National Weather Service 72-hour forecast for the Project Footprint. If a 70 percent or greater chance of rainfall is predicted within 24 hours, Permittee shall cease all construction phase Covered Activities until a zero percent chance of rain is forecast. Work may resume 24 hours after the rain ceases and there is a zero percent chance of precipitation in the 24-hour forecast. If work must continue when rain is forecast, the Designated Biologist(s) shall survey all work areas and travel routes (including existing and Project roads within 1.2 miles of known or potential CTS breeding habitat) immediately before each ground-disturbing activity to capture and relocate any Covered Species that are discovered during the surveys.</p>	ITP Condition # 9.28	Entire Project	Permittee
84	<p>CTS and Rainfall or High Humidity Events. Permittee shall cease all construction phase Covered Activities within 1.2 miles of known or potential CTS breeding habitat when any precipitation falls or relative humidity exceeds 75% (high humidity). Covered Activities may resume 24 hours after the rain ceases and/or humidity drops below 75% and there is a zero percent chance of precipitation in the 24-hour forecast. Any vehicles inadvertently trapped by rain of high humidity at the Project Area and that need to be moved during or within 24 hours after rain or high humidity, including worker's commute vehicles on Little Panoche Road and Panoche Valley Road within the Panoche Valley or Panoche Hills, shall be immediately proceeded by a Designated Biologist who will relocate any CTS out of the vehicle's path.</p>	ITP Condition # 9.29	Entire Project	Permittee
85	<p>CTS: Excavation of Small Mammal Burrows. In each area where ground will be excavated, trenched, graded, capped, or bladed, where spoils would be placed for any amount of time, or where other materials will be stockpiled for greater than 24 hours, all small mammal burrows within 0.25-mile of known or potential CTS breeding habitat, and which cannot be fully avoided, shall be fully excavated under the direct supervision of the Designated Biologist. This does not include the portions of solar panel arrays where earthwork would not occur and original ground and vegetation would be left in place. The Designated Biologist(s) shall immediately capture any CTS encountered under relocated materials and immediately transport them in a plastic bucket containing a moistened, non-cellulose sponge or other nontoxic absorbent material to small mammal burrows as nearby as possible. The relocation sites will be beyond the limits of disturbance, and no further from known breeding locations than where the CTS were found.</p>	ITP Condition # 9.30	Entire Project	Permittee

86	CTS Salvage when Stockpile Materials are Moved. Dispersing juvenile CTS could take refuge under stockpiled materials or stormwater materials, such as pallets and silt fence, and then become crushed or desiccated when the materials are relocated. Permittee shall ensure that a Designated Biologist is present to capture and relocate any such CTS that may be found when stockpiled materials or stormwater materials are relocated. The Designated Biologist(s) shall immediately capture any CTS encountered under relocated materials and immediately transport them in a plastic bucket containing a moistened, non-cellulose sponge or other non-toxic absorbent material to small mammal burrows as nearby as possible. The relocation sites will be beyond the limits of disturbance, and no further from known breeding locations than where the CTS were found.	ITP Condition # 9.31	Entire Project	Permittee	
87	CTS Silt Fence Openings. Permittee shall maintain openings in all silt fences at minimum 66-ft intervals to allow CTS passage at all times.	ITP Condition # 9.32	Entire Project	Permittee	
88	Habitat Acquisition and Protection. Within 150 days of the effective date of the ITP, transfer fee title to the Project HLM lands to a CDFW-approved governmental entity, special district, non-profit organization, for-profit entity, person, or another entity authorized to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65955-65958, as amended. If the Panoche Valley HLM Lands have not been acquired and conserved by the end of the 150 day period, Permittee shall transfer fee title to the Panoche Valley HLM Lands pursuant to this section within 30 days of its acquisition of those lands. CDFW shall approve a non-profit entity, public agency, or Native American tribe to act as grantee for the conservation easements over the Project HLM Lands, provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3 and Government Code section 65967(a), once fee title is transferred pursuant to Condition of Approval 10.2.1.1.	ITP Condition # 10.2.1.1-10.2.1.2	150 days from ITP issuance. For Panoche Valley HLM Lands: 180 days from ITP issuance	Permittee CDFW	
89	CTS Pond Creation. Within one year of ITP issuance, Permittee shall establish 3 CTS breeding ponds on Project HLM lands within dispersal distance of existing CTS breeding ponds. Ponds shall be designed to naturally fill in winter storms and dry naturally in summer with water through May in average precipitation years. Permittee shall obtain CDFW's written approval of the pond locations and construction plans and shall fund perpetual maintenance, repair, and modification as necessary to achieve optimal hydroperiod for CTS in the long-term endowment for HLM lands.	ITP Condition # 10.6	Within one year of ITP issuance	Permittee	
POST-CONSTRUCTION					
90	Refuse Removal. Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.	ITP Condition # 7.16	Upon completion of construction.	Permittee	

91	<p>As-Built Development Plans. Permittee shall submit as-built development plans to CDFW within ninety (90) days of completing construction. The as-built plan sheets shall delineate and quantify the extent of all permanent Project features, including roads, buildings, power poles, solar panels, fence lines, and all other facilities and features associated with the Project. The plan scale shall be 1"=250' (one inch to 250 feet) or smaller. Plans shall be derived from survey data acquired after construction and shall be verified by the Designated Biologist(s). Permittee shall submit the plans in Portable Document Format (PDF) or a similar electronic format and as shapefiles for use in ArcMap.</p>	ITP Condition # 8.4	90 days from completion of construction.	Permittee	
92	<p>Final Mitigation Report. No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Designated Biologist shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Monthly Compliance Reports and all ASRs; (2) a copy of the table in this MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of the ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future projects on the Covered Species; and (8) any other pertinent information.</p>	ITP Condition # 8.8	No later than 45 days from end of operations.	CDFW	
93	<p>GKR Translocation Performance Monitoring. Mark-recapture trapping sessions at all translocation sites shall occur to determine whether the translocation succeeds in establishing new GKR colonies and whether the translocated individuals persist after translocation. Permittee shall monitor the performance of GKR translocations for a minimum of five years following translocation of the last individual moved during the construction phase. All translocated individuals shall be fitted with a passive integrated transponder (PIT) tag to enable documenting their survivorship. A minimum of 3 trapping sessions shall occur at each location in April and August in each of the minimum 5 years. Control sites shall be trapped in the same manner within the Panoche Valley. The performance monitoring shall measure abundance, apparent survival, reproduction by translocated individuals, and recruitment. Abundance and extent of GKR surface sign shall also be measured. If the results indicate that the translocation failed to establish self-sustaining colonies, then Permittee shall implement another five-year plan to accelerate GKR recolonization and abundance on HM lands. Permittee shall develop the performance monitoring plan with CDFW and shall obtain CDFW's written approval of the plan prior to disturbing ground.</p>	ITP Condition # 9.23.9	Upon GKR translocation and then for five years after last GKR is translocated.	Permittee	

94	ITP Condition # 10.6	Post-construction, for three years.	Permittee	
<p>Monitoring Performance of Adjacent Project HM Lands for SJKE. To monitor the performance of the adjacent Project HM lands for SJKE, Permittee shall fund monitoring of SJKE movement on and use of the Project HM lands that adjoin the Project Footprint and ensure that the monitoring is completed. The monitoring program shall be developed in coordination with CDFW's Regional Representative and USFWS. The qualified biologist shall deploy GPS collars on SJKE for 3 years, starting at the end of the construction phase, to determine the following, at a minimum:</p> <ul style="list-style-type: none"> • whether Covered Species avoid HM lands near the Project Footprint; • whether Covered Species utilize HM lands near the Project Footprint proportionally to their availability; • what type of use is exhibited (e.g., denning or foraging); • seasonal differences in use, and • whether predation, reproduction, and recruitment of SJKE is different on Project HM lands near the Project Footprint than in intact habitat areas not near the Project Footprint. <p>A sufficient number of SJKE shall be tracked to allow for detection of significant differences, if present, between use and predation rates at Project HM lands near the Project Footprint and intact habitat areas greater than one mile (approximately one home range radius) from large-scale solar energy developments, other large-scale developments, or unsuitable habitat areas.</p> <p>An individual who has demonstrated trapping experience while holding a memorandum of understanding pursuant to Fish and Game Code Section 2081(a) that permits SJKE trapping shall complete all trapping and shall coordinate all tracking and data analysis. Permittee shall submit the trapper's name and qualifications to CDFW for approval a minimum of 5 days prior to commencing with the monitoring study.</p>				

ATTACHMENT 2A

ATTACHMENT 2A
DEPARTMENT OF FISH AND WILDLIFE
HABITAT MANAGEMENT LAND ACQUISITION PACKAGE CHECKLIST FOR PROJECT APPLICANTS

The following checklist is provided to inform you of what documents are necessary to expedite the Department of Fish and Wildlife (CDFW) processing of your Habitat Management Land acquisition proposal. Any land acquisition processing requests which are incomplete when received, will be returned. The Region contact will review and approve the document package and forward it to the Habitat Conservation Planning Branch Senior Land Agent with a request to process the land acquisition for formal acceptance.

To: _____
Regional Manager, Region Name

From: _____
Project Applicant

Phone: _____

Tracking #: _____
CDFW assigned permit or agreement #

Project Name: _____

Enclosed is the complete package for the ☐ Conservation Easement OR ☐ Grant Deed

Documents in this package include:

☐ Fully executed, approved as to form Conservation Easement Deed or Grant Deed with legal description stamped by a licensed surveyor. Date executed: _____

☐ Proposed Lands for Acquisition Form (PLFAF)

☐ Phase I Environmental Site Assessment Report Date on report: _____
(An existing report may be used, but it must be less than two years old.)

☐ Preliminary Title Report(s) for subject property is enclosed and has been reviewed for Encumbrances, including severed mineral estates, and other easements. The title report must be less than six months old when final processing is conducted.

Included are additional documents:

☐ document(s) to support title exceptions

☐ document(s) to explain title encumbrances

☐ a plot or map of easements/encumbrances on the property

☐ Policy of Title Insurance (an existing title policy is not acceptable)

☐ County Assessor Parcel Map(s) for subject property

☐ Site Location Map (Site location with property boundaries outline on a USGS 1:24,000 scale topo)

☐ Final Permit or Agreement (or other appropriate instrument)

Type of agreement: ☐ Bank Agreement ☐ Mitigation Agreement

☐ Permit _____ Other: _____
(write in type of permit)

☐ Final Management Plan (if required prior to finalizing permit or agreement or if this package is for a Grant Deed)

☐ Biological Resources Report

☐ Draft Summary of Transactions ☐ hard copy ☐ electronic copy (both are required)

ATTACHMENT 2B



ATTACHMENT 2B

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
PROPOSED LANDS FOR ACQUISITION FORM ("PLFAF")

Date: _____

TO: Regional Representative

Facsimile:

FROM: _____

Applicant proposes that the following parcel(s) of land be considered for approval by the California Department of Fish and Wildlife as suitable for purposes of habitat management lands to compensate the adverse environmental impacts of the Project:

<u>Section(s)</u>	<u>Township</u>	<u>Range</u>	<u>County</u>	<u>Acres</u>
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_____	_____	_____	_____	_____
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Current Legal Owner(s), of the surface and mineral estates, include Assessor's Parcel Number(s):

General Description of Location of Parcel(s):

Land Value: \$

For Region Use Only

APPROVED _____ By: _____ DATE: _____

Regional Manager's Signature

REJECTED _____

Region: _____

Explanation: _____

ATTACHMENT 3

IRREVOCABLE STANDBY LETTER OF CREDIT
NO. **[Number issued by financial institution]**

Issue Date: **[date]**

Beneficiary:

Department of Fish and Wildlife
1416 Ninth Street, 12th Floor
Sacramento, CA 95814
Attn: HCPB Mitigation Account Coordinator

Amount: U.S. \$**[dollar number]** **[(dollar amount)]**

Expiry: **[Date]** at our counters

Dear Sirs:

1. At the request and on the instruction of our customer, **[name of applicant]** ("Applicant"), we, **[Name of financial institution]** ("Issuer"), hereby establish in favor of the beneficiary, the California Department of Fish and Wildlife ("CDFW"), this irrevocable standby letter of credit ("Credit") in the principal sum of U.S. \$**[dollar number]** **[(dollar amount)]** ("Principal Sum").
2. We are informed this Credit is and has been established for the benefit of the CDFW pursuant to the terms of the incidental take permit for the **[name of project]** issued by the CDFW to the Applicant on **[date]** (No. **[number]**) ("Permit").
3. We are further informed that pursuant to the Permit, the Applicant has agreed to complete certain mitigation requirements, as set forth in Conditions **[numbers]** in the Permit ("Mitigation Requirements").
4. We are finally informed that this Credit is intended by the CDFW and the Applicant to serve as a security device for the performance by the Applicant of the Mitigation Requirements.
5. The CDFW shall be entitled to draw upon this Credit only by presentation of a duly executed Certificate for Drawing ("Certificate") in the same form as Attachment A, which is attached hereto, at our office located at **[name and address of financial institution]**.
6. The Certificate shall be completed and signed by an "Authorized Representative" of the CDFW as defined in paragraph 12 below. Presentation by the CDFW of a

completed Certificate may be made in person or by registered mail, return receipt requested, or by overnight courier.

7. Upon presentation of a duly executed Certificate as above provided, payment shall be made to the CDFW, or to the account of the CDFW, in immediately available funds, as the CDFW shall specify.
8. If a demand for payment does not conform to the terms and conditions of this Credit, we shall give the CDFW prompt notice that the demand for payment was not effected in accordance with the terms and conditions of this Credit, state the reasons therefore, and await further instruction.
9. Upon being notified that the demand for payment was not effected in conformity with the Credit, the CDFW may correct any such non-conforming demand for payment under the terms and conditions stated herein.
10. All drawings under this Credit shall be paid with our funds. Each drawing honored by us hereunder shall reduce, *pro tanto*, the Principal Sum. By paying to the CDFW an amount demanded in accordance herewith, we make no representations as to the correctness of the amount demanded.
11. This Credit will be cancelled upon receipt by us of Certificate of Cancellation, which: (i) shall be in the form of Attachment B, which is attached hereto, and (ii) shall be completed and signed by an Authorized Representative of the CDFW, as defined in paragraph 12 below.
12. An "Authorized Representative" shall mean either the Director of the Department of Fish and Wildlife, the General Counsel of the Department of Fish and Wildlife, or a Regional Manager of the Department of Fish and Wildlife.
13. This Credit shall be automatically extended without amendment for additional periods of one year from the present or any future expiration date hereof, unless at least sixty (60) days prior to any such date, we notify the CDFW in writing by registered mail, return receipt requested, or by overnight courier that we elect not to consider this Credit extended for any such period.
14. Communications with respect to this Credit shall be in writing and addressed to us at **[name and address of financial institution]**, specifically referring upon such writing to this credit by number. The address for notices with respect to this Credit shall be: (i) for the CDFW: Department of Fish and Wildlife, Habitat Conservation Planning Branch, 1416 Ninth Street, 12th Floor, Sacramento, California 95814-2090 Attn: HCPB Mitigation Account Coordinator; and (ii) for the Applicant: **[name and address of applicant]**.
15. This Credit may not be transferred.

16. This Credit is subject to the International Standby Practices 1998 ("ISP 98"). As to matters not covered by the ISP 98 and to the extent not inconsistent with the ISP 98, this credit shall be governed by and construed in accordance with the Uniform Commercial Code, Article 5 of the State of California.
17. This Credit shall, if not canceled, expire on [**expiration date**], or any extended expiration date.
18. We hereby agree with the CDFW that documents presented in compliance with the terms of this Credit will be duly honored upon presentation, as specified herein.
19. This Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Credit is referred to or to which this Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

[Name of financial institution]

By: _____
Name: _____
Title: _____

ATTACHMENT A

IRREVOCABLE STANDBY LETTER OF CREDIT NO. **[Number issued by financial institution]**
CERTIFICATE FOR DRAWING

To:

[Name and address of financial institution]

Re: Incidental Take Permit No. **[permit number]**

The undersigned, a duly Authorized Representative of the Department of Fish and Wildlife ("CDFW"), as defined in paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. **[Insert one of the following statements:** "In the opinion of the CDFW, the Applicant has failed to complete the Mitigation Requirements referenced in paragraph 3 of the Credit." **or** "As set forth in paragraph 13, the Issuer has informed the CDFW that the Credit will not be extended and the Applicant has not provided the CDFW with an equivalent security approved by the CDFW to replace the Credit."]
2. The undersigned is authorized under the terms of the Credit to present this Certificate as the sole means of demanding payment on the Credit.
3. The CDFW is therefore making a drawing under the Credit in amount of U.S. \$ _____.
4. The amount demanded does not exceed the Principal Sum of the Credit.

Therefore, the CDFW has executed and delivered this Certificate as of the ____ day of _____, _____.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY: _____

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]"

ATTACHMENT B

IRREVOCABLE LETTER OF CREDIT NO. **[Number issued by financial institution]**
CERTIFICATE FOR CANCELLATION

To:

[Name of financial institution and address]

Re: Incidental Take Permit No. **[permit number]**

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in the paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. **[Insert one of the following statements:** "The Applicant has presented documentary evidence of full compliance with the Mitigation Requirements referenced in paragraph 3 of the Credit." **or** "The natural expiration of this Credit has occurred."]
2. The CDFW therefore requests the cancellation of the Credit.

Therefore, the CDFW has executed and delivered this Certificate for Cancellation as of the ____ day of _____, _____.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY: _____

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]"

ATTACHMENT 4

California Department of Fish and Wildlife
Mitigation Payment Transmittal Form

Project Applicant Instructions: Please fill out and attach this form to payment. For conservation banks, also attach the Bill(s) of Sale for credits sold. One form may be used for multiple transactions. **BUT YOU MUST USE A SEPARATE FORM FOR EACH CHECK YOU TRANSMIT.** Make sure to include Project Name, Project Tracking Number, and FASB Mitigation Tracking Number (if available) on the attached payment type.

(1) **DATE:** _____

TO: _____

Julie Vance

1234 East Shaw Ave, Fresno, CA 93710

(2) **FROM:** _____

Name

Mailing Address

City, State, Zip

Telephone Number/FAX Number

(3) **RE:** _____

[Project Name as appears on permit/agreement]

(4) **AGREEMENT/ACCOUNT INFORMATION:**

(Check the applicable type)

☐ 2081 Permit ☐ Conservation Bank ☐ 1802 Agreement

☐ 2835 NCCP ☐ Other _____

2081-2014-035-04

[Project Tracking Number]

[FASB Mitigation Tracking Number (if available)]

Index _____ PCA _____

(5) **PAYMENT TYPE** (One check per form only): The following funds are being remitted in connection with the above referenced project:

Check information:

Total \$ _____

Check No. _____

Account No. _____

Bank Routing No. _____

a. Endowment: for Long-Term Management Subtotal \$ _____

b. Habitat Enhancement Subtotal \$ _____

c. Security:

1. Cash Refundable Security Deposit Subtotal \$ _____

2. Letter of Credit Subtotal \$ _____

1. Financial Institution: _____

2. Letter of Credit Number: _____

3. Date of Expiration: _____

ATTACHMENT 5

Attachment 5
Panoche Valley Solar Project
ITP # 2081-2014-035-04

Additional Findings Discussion:
Analysis of GKR Mitigation Lands

CDFW found that 7,123 acres of the mitigation lands were of equal or greater value than the habitat impacted by the Project (Figure 1). CDFW determined that mitigation lands were of equal or greater value if they met the following criteria:

1. Less than 8 degrees slope.
2. Patch size is large or patch is next to large patches with GKR.
3. Low to no flood risk.
4. Not fragmented or otherwise indirectly impacted by the proposed construction and O&M activities.
5. Demonstrated GKR presence and abundance at least equal to the project area, unless human activities are known to be suppressing/have suppressed the population and the area can be restored to support more GKR.
6. Supports the same genetic subdivision affected by the project, which is also the genetic subdivision that maintains the smaller, surrounding populations.

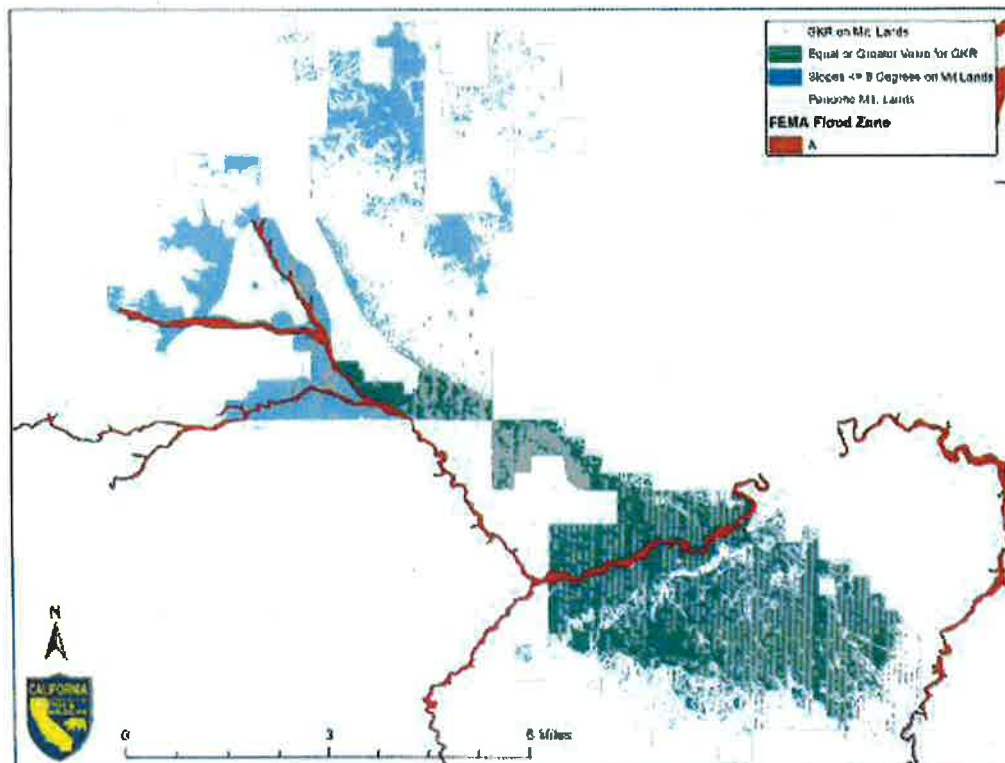


Figure 1. Habitat of Equal or Greater Value on Mitigation Lands

Green areas are those that meet all criteria. Blue areas met the slope criterion but not other criteria.

Below is justification for the criteria.

Past Land Use and the Occupancy Model

CDFW compared the Project Area's physical attributes, including soil type, slope, vegetation, and precipitation, to adjoining areas that have long been known to support high densities of GKR. Those physical attributes were not found to be appreciably different. The only evident difference was land use history: the long-occupied, high density areas were not cultivated or disked, while the lower-density areas were historically cultivated or disked and reverted to rangeland within the last two to three decades.

A predictive occupancy model provided by the Permittee was proven inaccurate when the GKR census was completed in the Project Area in 2013. The model used observed occupancy from repeated visits to small sample plots within the Project Area to predict occupancy across all of the Project Area—assuming that a) GKR occurrence (presence/absence) might change over a single season within a plot, and, b) GKR occurrence reflected habitat suitability. The occupancy model's statistical power was derived from repeated visits to each plot in lieu of a higher number of plots. This doesn't work for a species that is easily detectable and has a very small, static home range. GKR occupancy would not be expected to appear much different within the short, one-season sampling period used for the model. The model essentially used one small sample size and multiplied it to gain statistical power. As a result, the statistical power was misleading. The assumption that current occupancy equated to habitat suitability was also misleading because it did not consider that historic land use could affect GKR occurrence in otherwise suitable habitat, and that the population simply had not been given enough time to fully recolonize the habitat since that factors was removed.

The 2013 census mapped all GKR sign across the Project Area. The results showed that, in the Panoche Sandy Loam soil type that the model predicted was most suitable, GKR occurred roughly proportionately to its availability, disproving the model's prediction (Table 1). GKR were found disproportionately more on loam soils instead of on sandy loams. Loam soils comprise the vast majority of the Project Area and are the same soil types within the high density, persistent GKR colonies just east of the Project Area and on Silver Creek Ranch.

Table 1. Panoche Valley Solar Farm Giant Kangaroo Rat (GKR) Occurrence per Soil Type based on McCormick Biological, Inc. 2013 Survey Results

NRCS Map Unit Name	NRC S Slope Class	Symb ol	Acres	Occupie d Area (=acres of occupie d grid cells)	Percent of Area (=Availabilit y)	Percent of Total Occupie d Area	Percent Occupie d
Kettleman loam	15-50	KeF2	101.2	22.7	1.9%	4.6%	22.4%
Panhill loam	2-9	PhC	633.8	133.6	12.0%	27.3%	21.1%
Gullied lands	NA	GUE	24.9	4.8	0.5%	1.0%	19.3%
Shedd loam	15-30	ShE2	170.5	25.8	3.2%	5.3%	15.2%
Panoche loam	2-9	PIC	1083.0	142.5	20.4%	29.1%	13.2%
Shedd loam	30-50	ShF3	2.3	0.3	0.0%	0.1%	11.2%
Panoche sandy loam	0-2	PkA	370.3	37.8	7.0%	7.7%	10.2%
Riverwash	0-5	Rw	112.4	6.2	2.1%	1.3%	5.5%
Panoche loam	0-2	PIA	2115.9	114.3	39.9%	23.3%	5.4%
Kettleman soils	15-50	KmF2	7.6	0.2	0.1%	0.0%	3.1%
Vallecitos rocky loam	30-50	VrF2	22.9	0.2	0.4%	0.0%	1.0%
Panoche sandy loam	2-9	PkC	17.3	0.1	0.3%	0.0%	0.9%
Yolo gravelly loam	0-5	YvB	510.0	1.2	9.6%	0.2%	0.2%
Los Banos clay loam	2-9	LuC	53.6	0.0	1.0%	0.0%	0.0%
Los Banos clay loam	15-50	LuF3	7.6	0.0	0.1%	0.0%	0.0%
Yolo loam	2-9	YoC	64.5	0.0	1.2%	0.0%	0.0%

CDFW concluded that the current GKR distribution in the Project Area did not reflect habitat suitability, and that there was no evidence that sandy loams were the most suitable soil type. Rather, land use history, the distance from relict populations as sources for recolonization, and time since cultivation ceased better explained the observed gradient of east-to-west, higher-to-lower GKR densities within the Panoche Valley. The entirety of the uplands within the Project Area were therefore considered to be high quality GKR habitat, supporting a population that has not yet reached equilibrium since being impacted by past land use practices.

Slope

The 2013 surveys also collected GKR occurrence data on Silver Creek Ranch and Valadaeo Ranch, areas which were not subjected to cultivation historically. This afforded the opportunity to test whether and to what extent slope values were correlated with GKR occurrence in those areas where GKR abundance and distribution did not appear to be constrained by past land use practices. The results were used to evaluate whether the HM lands provided habitat that is of equal or greater value to the Project Area, based on slope.

Williams¹ concluded that GKR occurred on slopes of up to 21 degrees. The survey data for this project found GKR on slopes above 21 degrees. CDFW's analysis of that data found that GKR on slopes above around 15 degrees were outliers. Not all slopes under 21 degrees are of equal value to GKR.

Much of the acreage that was proposed as suitable for GKR based on slopes of less than 21 degrees on the Valadaeo Ranch occurs in small patches surrounded by very steep slopes. Patch isolation and size likely play a role in the limited GKR distribution found in those areas. In contrast, the large GKR colonies found in the Panoche Valley surveys (and throughout the species range) are all in extensive patches of low-relief terrain.

The relationship between slope and GKR sign was clear from the survey data without doing any statistics for both Valadaeo and Silver Creek (Figure 2). These graphs show the percent of surveyed cells that had GKR sign (both "active" and "inactive") at each slope value sampled. GKR sign diminished quickly above approximately eight (8) degrees slope.

¹ Williams, D. 1992. Geographic distribution and population status of the giant kangaroo rat, *Dipodomys ingens* (Rodentia, Heteromyidae). Pp. 301-328, in *Endangered and sensitive species of the San Joaquin Valley, California: their biology, management, and conservation* (D.F. Williams, S. Byrne, and T.A. Rado, eds.). The California Energy Commission, Sacramento, 388 pp.

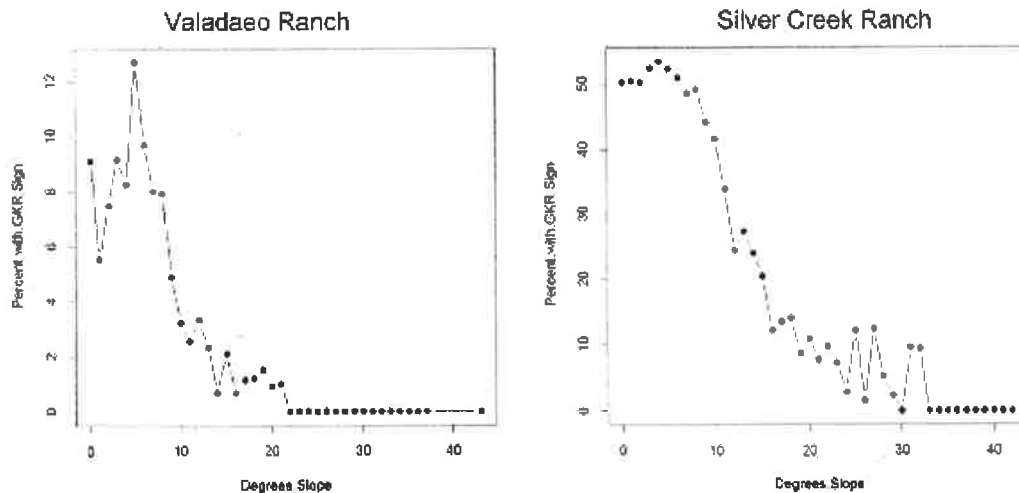


Figure 2. Percent of Cells with GKR Sign per Degree Slope.

The boxplots below (Figure 3) show that on Silver Creek, 75% of the GKR sign found was on slopes of less than 7.8 degrees, while 75% of cells surveyed where no GKR sign was found were on 0 to 16.5 degrees slope. 75% of the GKR sign at Valadaeo was on slopes of less than 7.5 degrees, while 75% of cells where no GKR sign was found were on 0 to 17 degree slopes.

The mean slopes where GKR sign was found on Valadaeo, using the USGS 10 m NED data, was 5.9 degrees (99% CI: 5.4-6.4). That is not significantly different from where GKR were found on Silver Creek, where the mean was 5.7 degrees (99% CI: 5.5-5.9).

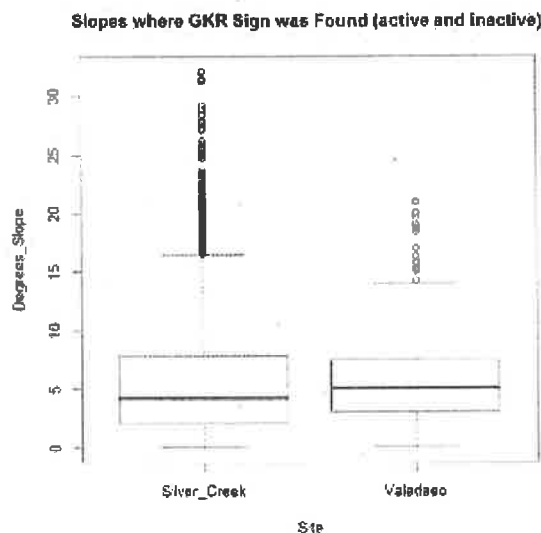


Figure 3. Box Plots of Slope Values where GKR Sign was Found.

The circles represent outliers. Nonetheless, outliers were included in all analyses

assuming that they represented accurate observations of GKR sign. It should be noted that an academic researcher trapping GKR in this area is skeptical of determining GKR presence in the hills here based on surface sign due to his negative GKR trapping results and confirmed presence of sympatric species. Williams also noted that in this same geographic area, using surface sign alone, he could not accurately determine where GKR occupied the same areas as Heermann's kangaroo rat (*Dipodomys heermanni*).

The mean slope where GKR sign was found was significantly different from the mean slope where GKR sign was not found in survey grid cells at both Valadaeo and Silver Creek (p < 2.2e-16 for both), which were 11.3 and 10.6, respectively (Figure 4).

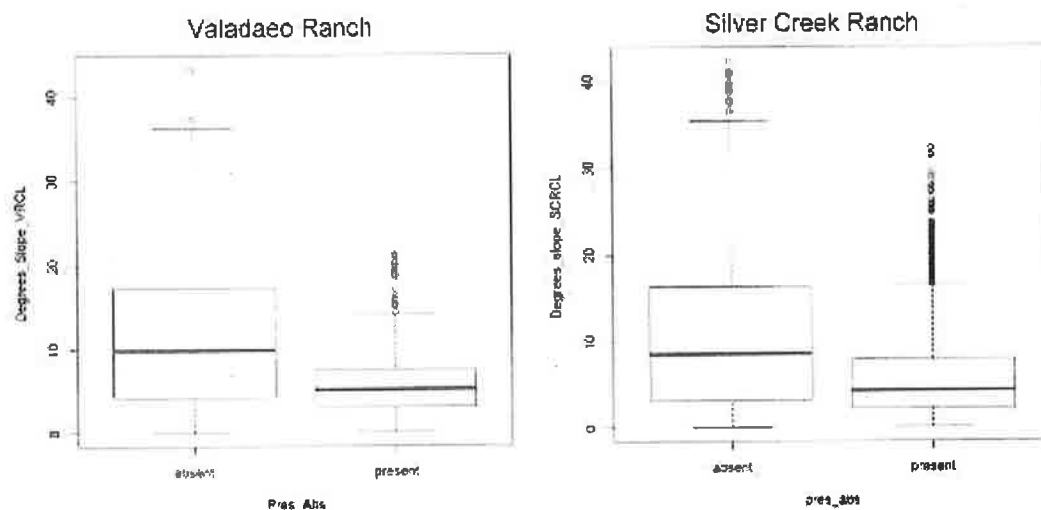


Figure 4. Box Plots of Slope Values where GKR Sign was Present and Absent.

Further, the percent of survey cells where GKR were found decreased sharply as slope increased (Figure 5). This inverse relationship was highly significant at both Valadaeo (p < 6.676e-07) and Silver Creek (p < 2.96e-14). The negative correlation was strong (adjusted r-squared of 0.70 and 0.85, respectively).

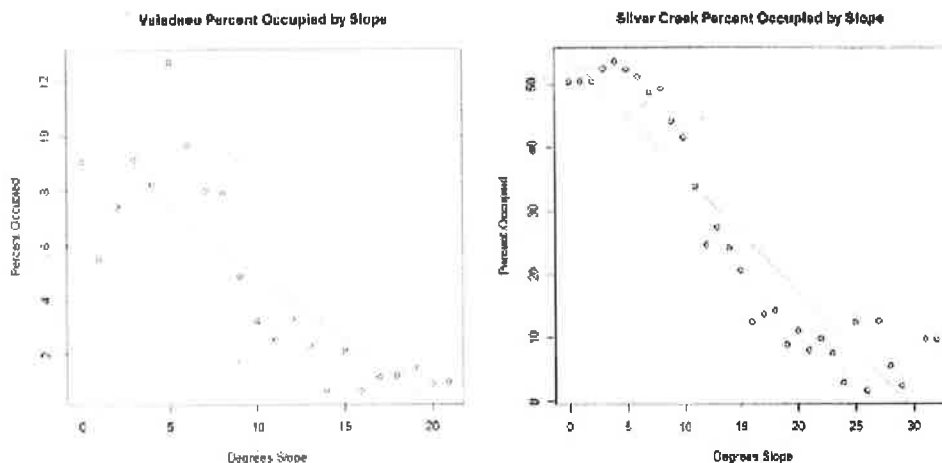


Figure 5. Linear Regression Results.

Therefore, the average slopes on Valadaeo are much greater than optimal for GKR, based on the survey results. It would appear that less than about 8 degrees slope is optimal for GKR and that, statistically speaking, observations above 14.1 degrees on Valadaeo and 16.5 degrees on Silver Creek were outliers. The project site is entirely below 8 degrees slope. Valadaeo has 3,931 acres that are <8 degrees slope, much of which is fragmented into small patches, and most of which supports very few GKR even on the larger patches. Thus, most acres on Valadaeo are generally of lesser value to GKR than the Project Area based on slope, which likely explains the low occurrence rate of GKR found at Valadaeo.

Flood Risk and Habitat Fragmentation

The HM lands adjacent to and between portions of the Project were not considered of equal or greater value to the area impacts by the Project for two reasons. One was that much of that area is subject to frequent flooding, which has been documented to extirpate GKR populations². CDFW has also observed that flooding extirpated a Tipton kangaroo rat population on CDFW lands. Flood risk was evaluated based on observed field conditions, FEMA mapping (Figure 1) and hydrologic modeling provided by the applicant (Figure 6). The other reason is that the areas would become smaller habitat patches as a result of implementing the Project. That is compounded by the flood risk in much of the same area. These would be indirectly affected by the Project and therefore could no longer be considered of equal or greater value than the larger habitat patch of which the lands were once a part. Larger, intact habitat patches are more valuable than fragments of the same patch. Therefore, those avoided areas near the Project are considered as part of the requirement to minimize impacts, but are not counted as area of equal or greater value and therefore offsetting the Project's impacts.

² Williams, D. 1992. Geographic distribution and population status of the giant kangaroo rat, *Dipodomys ingens* (Rodentia, Heteromyidae). Pp. 301-328, in *Endangered and sensitive species of the San Joaquin Valley, California; their biology, management, and conservation* (D.F. Williams, S. Byrne, and T.A. Rado, eds.). The California Energy Commission, Sacramento, 388 pp.

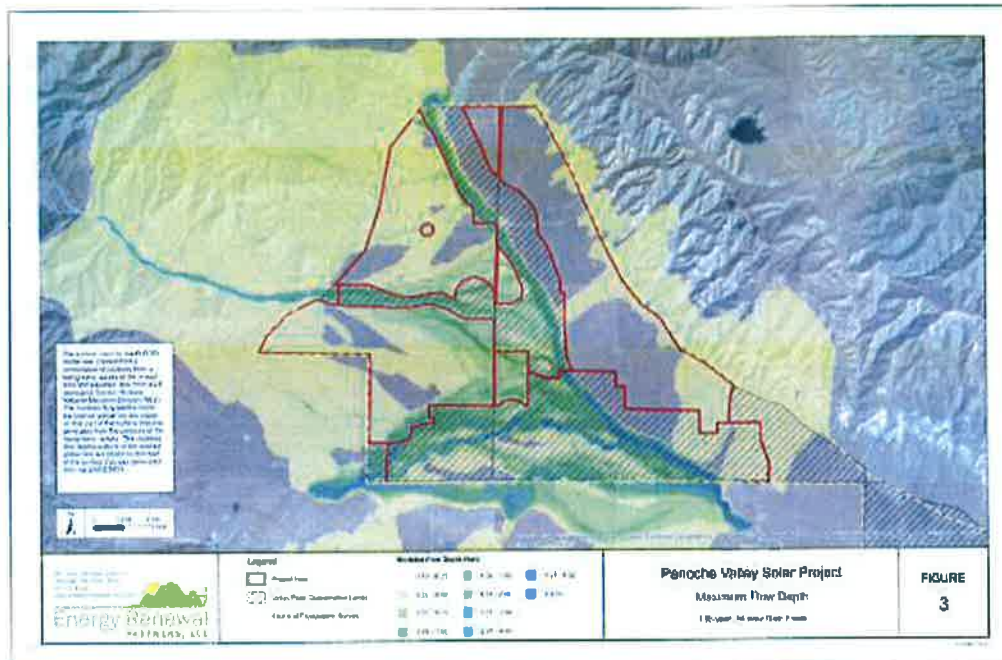


Figure 6. Flood Modeling Provided by Applicant.